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The College Library[1]

AMERICAN colleges have advanced greatly in efficiency in recent years. Much of their progress is due to their voluntary cooperation in associations established by the colleges themselves—their regional associations and the American Council on Education—and especially to the standards set up by these organizations. Criteria formulated by the American Council on Education Committee on Standards have been adopted with but little change by the Association of American Universities and the four regional associations which publish lists of approved colleges. The application of these criteria to individual institutions by the several committees and commissions has been immensely helpful irrespective of recognition involved, because the criteria have been applied by educators seeking to aid the colleges. It is the practice of the associations to base their judgments on reports of facts discovered by a representative in a personal investigation of each college. Experience in applying the criteria has led to some dissatisfaction with certain of them.

The college library is one item of the fifth criterion, "Buildings and Equipment," published by the American Council on Education: "The material equipment and upkeep of a college including its buildings, lands, laboratories, apparatus, and libraries, and their efficient operation in relation to its educational progress, should also be considered when judging an institution.

"A college should have a live, well distributed, professionally administered library of at least 8,000 volumes, exclusive of public documents, bearing specifically upon the subjects taught and with a definite annual appropriation for the purchase of new books."

The Association of American Universities, the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the Association of Colleges and Secondary Schools of the Southern States, the North Central Association of Colleges and Secondary Schools, and the Northwest Association of Secondary and Higher Schools, have the same criterion. The North Central Association adds: "and current periodicals. It is urged that such appropriation be at least $5 per student." For junior colleges in the North Central Association the minimum number of books is set at 3,000 and an annual appropriation of $800 is urged; the Southern Association requires a minimum of 2,500 volumes and suggests an appropriation of $500.

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[1] An address delivered before the Second Institute on Problems of College Education, the University of Minnesota, July, 1928, and printed with the consent of the University of Minnesota.

Are these criteria adequate? What is the experience of those who have used them? What *are* the signs of an efficient library in an American college?

The most specific item among the requirements of the several associations is the total number of volumes. This seems to be an objective measure easy to use. But what is a volume? It is expressly declared that government documents are not to be counted. Are unbound monographs volumes? Dr. Works presents six meanings of the word in the appendix to his "College and University Library Problems." There is confusion as to the meaning of the word "volume" and the word "title." Furthermore, unless a library has been professionally administered for many years it frequently happens that there is no accession list promptly and accurately kept in accordance with definite principles and affording a serial number which immediately gives the precise total. In reporting on the number of volumes some colleges guess; and their guesses always exceed the actual. So it is that lack of definition may lead to a census as unreliable as that which Gogol makes the basis of "Dead Souls." Thus it is that even so simple and objective a thing as the total number of volumes in a library may be difficult to learn.

With this warning in mind, consider the total number of books reported June 30,1926, by the colleges on the approved lists of the above named associations, lists which make up that of the American Council on Education which includes institutions represented in "American Universities and Colleges."[2] The minimum set by the associations—8,000 volumes—is barely met by two colleges. Seven institutions on the approved lists of regional associations reported fewer than 8,000 volumes. The range of numbers reported is from 6,900 (Tusculum) to 2,497,200 (Harvard). Since we are discussing the college, rather than the university library, let us omit consideration of the libraries of colleges attached to universities and examine the situation in the independent colleges. Even here the range is great; from 6,900 (Tusculum) to 274,200 (Oberlin). Fourteen institutions with college curricula only, or chiefly, have libraries containing more than 100,000 volumes; Amherst, 130,000; Bowdoin, 130,000; Colgate, 107,932; College of the City of New York, 100,000; Dartmouth, 226,000, Hamilton, 110,000; Oberlin, 274,200; Ohio Wesleyan, 100,602; Smith, 133,000; Vassar, 142,000; Wellesley, 115,000; Wesleyan (Connecticut), 152,000; Williams, 111,000.

Between 6,900 and 274,200 what is the right number to set as the minimum for a college? W. W. Bishop[3] declared in 1920 that "the college with less than 100,000 volumes is but ill prepared to give modern work in the humanities and in science." If Mr. Bishop is right then an approved list of colleges must be very short, including only the fourteen colleges just named.

Dr. Works[4] declares: "Some librarians who have given much thought to this problem have as a result of years of observation reached the decision that a relatively small number of books will meet practically all the needs of an undergraduate college. They place the number at 75,000 to 100,000 for a student body of not more than 2,500." If this idea prevailed we could add to the list of fourteen the following nine colleges: Denison, 80,000; Marietta, 75,000; Miami, 85,000; Mt. Holyoke, 91,469; St. Mary's (Wisconsin), 80,000; St. Vincent's, 70,000; St. Xavier, 63,000; Swarthmore, 75,000; Trinity (Connecticut), 80,000. Twenty-three colleges could meet the standard; all the rest would be rejected.

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[2] "American Universities and Colleges," edited by David Allan Robertson. The American Council on Education. Charles Scribner's Sons. New York, 1928.

[3] "Our College and University Libraries: A Survey and a Program." *School and Society*, 12:205, September 18, 1920.

[4] "College and University Library Problems," 1927, page 12.

W. H. Kerr,[5] in 1926, maintained that for an institution with from two hundred to five hundred students a fair minimium would be 50,000. Of 397 colleges only 128 could satisfy that test.

Just as an experiment suppose we set the minimum at a figure half that of Kerr, one-third that of Works, one-fourth that of Bishop, but three times that of the regional associations—25,000. Of the institutions now on approved lists one hundred and fifty-three having 25,000 or fewer volumes would fail to satisfy such a requirement.

If we try the number recommended by the American Association of Teachers Colleges—15,000—we find that 13 institutions report exactly this number and 36 others report smaller numbers. Because my experience with college statistics leads me to believe that the round number 15,000 given by 13 institutions indicates an actual number smaller than the one reported, I think that 49 colleges on the approved lists could not on June 30, 1926, measure up to the requirement of the teachers colleges.

Do the libraries of foreign universities offer a standard for the American college? "Mr. Ticknor once said to me," wrote G. S. Hillard,[6] "that nothing more marked the change produced in him by his long residence in Europe than the different impressions made by the library of Harvard College before his departure and after his return. 'When I went away,' he said, 'I thought it was a large library; when I came back, it seemed a closetful of books.'" At that time, 1820, the Göttingen library had 200,000 books, ten times as many as the largest college library in the United States. A comparison of the total number of volumes in an American university library today with the number in a German or British university is less depressing. Harvard, in 1926, reported in all its libraries 2,497,200; Göttingen, in the 1926 volume of "Minerva," reported 700,127. Yale, in 1926, had in all libraries over 1,700,000. The Bodleian according to the British Universities Yearbook, in 1927, had a collection of 1,250,000 and the university library at Cambridge included 1,000,000. Of course it is to be noted that in addition to the university libraries in both these institutions there are the libraries of the different colleges. The more recently established British universities have smaller libraries: Birmingham, 120,000; Bristol, 70,000; Durham, 39,000; Leeds, 98,000; Liverpool, 100,000; Reading, 40,000; Sheffield, 83,000. But these institutions are like the ones we have eliminated from our study—the college associated with a university. Institutions more like our independent American colleges and the individual colleges at Oxford and Cambridge are the University College in Exeter which has 60,000 and that in Southampton which has 41,000. In Canada, a university like McGill has 242,000 and the University of Toronto 211,118; of college libraries Acadia has 50,000 volumes, St. Francis Xavier, 40,000.

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[5] "What Makes a College Library?" *Library Journal*, 51:171, February 15, 1926.

[6] "Life, Letters and Journals of George Ticknor," Vol. I, p. 72. Footnote.

Why should any number be set as a minimum—8,000, 15,000, 25,000, 50,000, 75,000, or 100,000? Why did the American Council on Education Committee on Standards set 8,000 as its minimum? Probably this was proposed because the third criterion declared that "for a college of approximately 100 students in a single curriculum the faculty should consist of at least eight heads of departments devoting full time to college work." For such a minimum instructional staff a library of 8,000 volumes was proposed, 1,000 for each department. Obviously there is no scientific basis for this minimum; and there is none for any of the others. Instead of announcing a number arbitrarily we need cooperation of instructors and librarians in estimating an approximate number of books necessary or desirable for a college with a given curriculum by making check lists for courses offered, for general references, and for general reading. The standards committee or the newly appointed special committee of the North Central Association may well lead in such a study. For a given curriculum in the college it will then be possible to offer such check lists as have already been prepared for elementary and secondary education.

I did not say "for a given number of students." Librarians and educators have recently developed a habit of calculating the number of volumes per capita enrollment. For example, the Association of American Colleges' Bulletin, May, 1928, p. 278, presents such information for the Minnesota colleges: St. Olaf, 26; Hamline, 61; St. Teresa, 71; Carleton, 101; St. Benedict, 152; St. John's, 277. Dr. Works[7] studies the growth in the number of volumes in relation to the increase in the number of students. The American Library Association report on high school libraries bases recommendations concerning the number of volumes a high school should possess on the number of students enrolled. In Dr. R. L. Kelly's volume "The Effective College," he prints a recommendation of the president of Ripon College:[8] "For 500 students a library costing $200,000 and an endowment of $800,000 for maintenance, service and purchase of books." Emphasis on the total number of books and the total number of students or the number of volumes per capita may actually conceal a bad situation—as it has done in certain cases. If an institution reports 20,000 volumes and 500 students it may seem to have a satisfactory library. But if investigation shows that of 20,000 volumes 15,000 are in the field of engineering and of 500 students 50 are in 5 engineering courses one may feel that for the 50 engineering students the situation may be satisfactory; but that for the 450 students in 80 liberal arts courses it is less so. Totals and averages may conceal evils. A college, if it offers certain courses, must make available books necessary in those courses no matter what may be the number of students in the classes or the college. To measure the efficiency of a library by the number of books it possesses is like measuring the efficiency of a college by the number of students it has enrolled. The figures are significant but they must be carefully considered in connection with other matters. The number of books or students may be less significant than their quality.

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[7] Op. cit., p. 8 ff.

[8] Page 138.

The character of the book collection is mentioned in the criterion. The library must be "live," "well distributed" and must "bear specifically on the subjects taught." How can one know that a collection satisfies these demands? Read the shelves—all of them. An experienced observer can quickly discover the presence of significant numbers of dead or relatively useless books. The broken backed brown leather volumes of sermons which clergymen discard from their own libraries are easy to discover. Not long ago at the College of William and Mary I found a heap of such books upon the floor. In answer to my query, the alert and able librarian of that institution said: "In thirty years I've never had a call for a volume of sermons. I've picked these from the shelves, and I'm putting them where they can be found but where they will not be in the way of more useful books." On the other hand one college cherishes the private library of a very famous mid-Victorian clergyman of London. It comprises a large part of its total collection. It contains few books related to the college needs; it is hardly ever used. Elegant bindings and large paper editions, like the elephant folio in handsomely tooled leather which embalms the stupid poetry of Matthew Prior, do not always mean "live" books. The title on the book's back is one index to a volume's vitality. By choosing certain significant sections like Economics or Sociology or Psychology or French or Spanish or English or Biology or Geology, one can read each title and, if one knows something of the subject, determine if the works on the shelves are alive in relation to the field.

"Well distributed" the collection must be. In a college which "did not have room" for the New English Dictionary I found on the reserved book shelves copies of "Dusty Answer" and Marie Corelli's "Thelma" and ten out of date copies of "Who's Who in America." Not long ago I had occasion to examine a university library. The institution had a highly competent staff in Biology, fully equipped laboratories and a live and large collection of books and periodicals in science. In English literature that institution offered two courses in Shakespeare, two in the history of the English novel and one in the theory of fiction—courses I used to conduct at the University of Chicago and for which I knew what books were necessary. The English section of the general library was made up largely of English fiction of a certain decade of the twentieth century. When I asked if there were other books in the English literature section the Dean said: "Oh, we have departmental libraries." "Fine," said I, "show me the English one." We found it at the top of the oldest building on the grounds. It was five shelves high and four feet wide above the desk of the head of the English department. After reading these shelves I asked if the library possessed certain books essential in a course on the English novel. It had none of them. The teacher of the Shakespeare course standing by, I asked if the library had books in common use in such a class—the Variorum Edition, which every progressive high school has today, Sidney Lee's "Life of Shakespeare," and other titles equally obvious to a student of Shakespeare. It had none of them. "What have you in the field of Shakespeare?" I asked the Shakespeare instructor. The only book relating to Shakespeare possessed by that library was W. A. Neilson's single volume edition of the collected plays, an excellent book but one which is in the possession of every member of an elementary class in Shakespeare. Certainly this university, offering courses in Biology and well equipped with laboratories and library to do so, and offering the above named courses in English and with such a collection of books to support them can hardly be said to have possessed a "well distributed" collection.

Sometimes a library seems to violate the principle of good distribution in that it has some notable special collection, such as the Quaker material at Haverford or the Negro-Americana at Howard University, Marietta's Stimson collection and manuscripts in the history of the Northwest

Territory, Grove City's General George B. McClellan Civil War Collection, the Lindenwood College manuscripts of early Missouri history. Ohio Wesleyan has late seventeenth and early eighteenth century English literature. Lehigh, so well known for engineering, has a collection of English literature prior to 1640, including the first and second Shakespeare folios. Such special collections useful for research—many are mentioned in "American Universities and Colleges"—are to be cherished and extended if, after the needs of the courses are cared for, funds can be devoted to them.

The associations decree that the books shall bear "specifically on the subjects taught." My illustration of a library which was not "well distributed" might better have been used at this point. Between the number of books and the number of departments it is difficult to find a clear relation because the numbers and names of departments are so various. Sometimes a college has only a single department of ancient languages; sometimes there are at least two: Greek and Latin. Sometimes modern languages are in a single group; sometimes French, German and Spanish are separated. The number of departments in colleges ranges from seven to twenty-seven. The relationship to courses, however, can be studied just as in the case of the course in Shakespeare and the one in the English novel. In one college I found that a student had discovered one hundred type fossils in the neighborhood of his campus and, enthusiastically looking foward to graduate work in paleontology, had taken all the courses in geology offered in his college. Curious to see what the library offered this excellent student, I read the shelves. There were only fifty books in the field of geology and geography, for the most part books of the 1880 science and religion controversy. Fortunately for this lad, his instructor had a private library which he generously used to supply the deficiencies of the college collection. In the same college, which offered thirteen courses in French, I found that the Romance collection included only thirty-two books. When I asked the librarian, not a professionally trained one, if that was all he had, he said that he had hidden some of the

French books because he thought they ought not to be accessible. I insisted on seeing the "hidden books." There was only one—an English translation of Rabelais. Needless to say that institution is not on the approved list of the Association of American Universities. Happily such an experience is exceptional.

General reference works are needed by all departments. Sometimes a department hopes that some other one will be willing to charge to its appropriation a book needed by all. Such a situation makes necessary the trained librarian to guide development. The professionally trained librarian knows the importance of each reference work named in the Mudge list published by the American Library Association.[9] Especially, I find, the professionally trained librarian always knows the importance of the New English Dictionary, called also the Oxford or Murray's, completed in 1928 after seventy years of international cooperative scholarly endeavor and the greatest dictionary ever published. If it is not in the library, both the library and the English department will require special investigation. It is the touchstone of the college library.

The practice of having in the main reading room or adjacent to it a group of shelves for use in connection with current classes has become general. President Eliot in his annual reports used to refer with interest to the significant increase in the number of reserved books. In building up the reserved book list the library has the assistance of every instructor who prepares a bibliography for each of his own courses. As I have already suggested, by making a list of the courses leading to the A.B. and B.S. degrees and by securing from the instructors in those courses lists of the books necessary or desirable in relation to their courses, a librarian could make up a check list of books for a college library. If the librarians and teachers of several colleges would do this and then compare their lists, the resultant one would be extremely useful not only for colleges but for junior colleges, the library standards for which are at present lower than those recommended by the American Library Association Committee for high schools. Such a list would be as important for colleges as the American Library Association catalog is for the public libraries. When this list first appeared in 1904 it included 8,000 books; in 1926 it had 10,295 titles useful in the small public library. We have also the Mudge list of reference books. Miss Lucy D. Tuckerman of the Worcester Art Museum has just issued a list of about 7,000 works demanded in the library of a small art museum. A list for a college library could be built up on the experience of the colleges in forming their reserved book collections and would be useful.

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[9] J. G. Mudge: "New Guide to Reference Books," A. L. A., Chicago, 1923.

A moment ago I decried the discussion of the relation of the total number of books to the total number of students. In connection with reserved books there does indeed arise a problem connected with the number of students who must use a given book at a certain time: Duplicates. Sometimes they are included in the report of the total number of volumes. Sometimes they are not counted. The problem of duplicates has become pressing, as the increase in the number of students has brought to the consciousness of librarians the need for several copies to supply a demand. If a large class must read a particular assignment on a given day, there will be a severe draft on the library. This can be somewhat alleviated if the instructor will make his expectations known early in the course so that readers and librarians may adjust themselves to the resources of the library. Colleges sometimes furnish one copy for every five students in a class, sometimes one book for fifteen; usually one copy for ten students. At Columbia University the growth of the number of duplicate copies has been notable and typical: 1910-11, 115; 1911-12, 190; 1912-13, 1,240; 1913-14, 3,523. In the Columbia reading room for undergraduates, out of 6,000 books 1,000 are duplicates. The practice of providing duplicates leads to the purchase of a great many copies of a few books which may at the moment be considered necessary in a course, but which may never again be used even in the course for which ordered, because the instructor sometimes changes his mind about the content of his course or the method of conducting it. One college recently visited has ten copies each of many elementary works, indeed thirty-four copies of a certain text-book, but no copies of essential reference books, notably the New English Dictionary. As yet, however, I am glad to say that I have found no college which includes in a report of its library resources the duplicate hymn books and Bibles in the pews of the college chapel!

Only the North Central Association makes any reference to the importance of current periodicals. I have found the list of current periodicals of great significance. In "American Universities and Colleges" the number reported varies from 10 (College of Charleston) to 11,774 (University of California). Twenty-eight universities receive more than 1,000 periodicals each. Twenty-seven receive from 500 to 1,000. In this group we find Carleton, William and Mary, Mills, Ohio Wesleyan and Vassar—institutions with a college curriculum. Among such colleges we find much variance: Carleton, 600; Carroll, 25; Charleston, 10; Colgate, 320; Dartmouth, 1,200; Hamilton, 425; Hampden-Sidney, 24; Haverford, 200; Incarnate Word, 18; Missouri Valley, 30; Mt. St. Mary's, 20; Mills, 508; Pomona, 385; Reed, 200; Skidmore, 218; Sweet Briar, 90; Vassar, 560; Wabash, 125; Washington (Maryland), 25; Wells, 347; Wesleyan (Georgia), 76; Western, 60; William and Mary, 500. Why should Vassar with a college curriculum have 560 while Sweet Briar has only 90? Is it because Vassar had at that time 1,149 students while Sweet Briar had 437? Well, then, why should Sweet Briar with 437 students have only 90 while Wells with 242 students has 347?

A useful document for the college librarian is Frank K. Walter's "Periodicals for the Small Library." Another is Dr. Leo F. Stock's list of 215 American learned journals.[10] With these as a general check list the college librarian with the cooperation of instructors can build up a useful list of periodicals for his own college. The chemistry department, for instance, will need the "Abstracts," not mentioned in Mr. Walter's list, and will gladly follow the procedure described in "Science," October 28, 1927, to determine what publications are most useful to the instructors and students in chemistry. The article to which I refer is based on a study of references to periodicals, made in a single volume of the American Chemical Journal. Likewise the instructor in English will be interested in general magazines but also in such reviews as the "London Times Literary Supplement," by far the best published in English, and such scholarly publications as "Anglia." The French departments have long been aware of the stimulation their elementary students find in "L'Illustration" and "Revue de Deux Mondes" and "Mercure de France." As an English teacher I used to look up in the recorder's office the language training of each student registered in my class and in assigning work in bibliography or criticism I took seriously the student's language training expecting him, if he had finished the requirement in French, to use current French magazines. Of course there was usually some surprise that an English teacher should assume that the modern language training was useful—to such a pass have we come with our system of crediting semester hours—but usually also there was gratification to find that the study of a modern language had actually given some control of a tool. It has given me great pleasure to find at many colleges science as well as literature and history professors who expect their students to use their modern languages. In at least one college I found that the French and German periodicals had apparently been secured for the private amusement of professors. The journals in the college library ought to be for the use and delight of students as well as professors.

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[10] "List of American Journals devoted to the Humanistic and Social Sciences." American Council of Learned Societies Bulletin No. 8. October, 1928.

How significant a periodical list may be in revealing the character of a single department in a university or college appears in the following way. The Research Information Service in 1925 reported 306 periodicals devoted to psychology or occasionally printing articles which come within the scope of the Psychological Index. This Index includes publications on human and comparative anatomy and psychology of the nervous system, the psychological part of mental and moral philosophy and applications such as personnel research, industrial psychology, and various educational topics. Of these 306 titles 113 are printed in English and 193 are printed in foreign languages. The total number of items in this list received by a university or college and the proportion of foreign language journals on the institution's list afford an interesting indication of the institutional attitude toward the support of research and teaching in this field.

The University of Michigan, which leads American universities in the number of periodicals pertaining to psychology received by the library, reports 227, of which 98 are in English and 129 in foreign languages. Yale, Chicago, California, Columbia and Johns Hopkins each received more than 180 of these periodicals, and all of them included more journals published in foreign languages than in English. It would appear that these universities dedicated to research and graduate study endeavor to give to professors and students facilities to know the truth in whatever language it may be expressed. Among the colleges there is a significant variation in the total number of psychological periodicals in their libraries. Dartmouth receives 137; 85 in English; 52 in foreign languages. Bryn Mawr receives 102; 66 in English; 36 in foreign languages. Vassar, 97; 71 in English; 26 in foreign languages. Smith, 86; 61 in English; 24 in foreign languages. Oberlin, 82; 65 in English; 17 in foreign languages. Wellesley, 81; 65 in English; 16 in foreign languages. Amherst, 79; 58 in English; 21 in foreign languages. Williams, 52; 42 in English; 10 in foreign languages. Reed, 51; 45 in English; 6 in foreign languages. Colgate, 48; 44 being in English. Haverford, 44; forty of them in English. Swarthmore, 19; one of which is in a foreign language. In this single field of psychology the list of periodicals helps one to know which colleges afford their students access to the latest studies in journals both in English and in foreign languages.

No matter how great the number of books and periodicals in a library or how excellent the selection of them may be for college purposes, the library is valueless unless it is used. The medieval notion was that a library was for the collection and preservation of documents. Early American libraries were obsessed by the same idea. The ideal seemed to be to have every volume in its place on the shelf and to keep it there. Today the American library policy is expressed by Dr. Works: "*Each institution should be studied with the* idea of so locating the library resources as to make for their largest possible use by students and faculty."

The library building is now no mere storehouse or museum to which the curious may reluctantly be admitted. It is a place to use books in. Its site is chosen in relation to the convenient use of books by students and teachers. Its plans are developed to further the use of its resources. The space for readers of books and periodicals and the relation of reading rooms to stacks and delivery desk are carefully considered. And yet in view of the costly character of the college library building, usually the most monumental structure on the campus, it is surprising to find how frequently the college library is a failure. One structure erected as recently as 1912 was planned without any space for a periodical room. One university has put most of its books in underground stacks. Yale, on the other hand, has planned to carry its stacks aloft in a book tower. One can easily guess which arrangement will invite scholars to work in the stacks. Any college about to build a library will do well to place in the hands of all concerned the paper presented to the American Library Association at its meeting December 31, 1927, by Frances Warner and C. H. Brown: "Some Fundamentals of College and University Library Buildings." There is need of an illustrated manual like the useful studies of medical school buildings printed by the Division of Medical Education of the Rockefeller Foundation.[11] The professional librarians have had a wealth of experience on which architects and educational authorities can draw in planning buildings that will be not only beautiful monuments but places where books can be enjoyed.

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[11] See especially articles on the library of a medical school in "Methods and Problems of Medical Education." (Sixth Series.) Division of Medical Education. The Rockefeller Foundation, 1927.

Meanwhile the investigator of a college library will observe the evidence that the library can be and is used. Does the college assign space needed by the library to a president's office, an auditorium, class rooms, exhibition rooms, offices of members of the faculty, student headquarters for editing a newspaper or for smoking? Is the space actually assigned for the reading room adequate? What should be adequate? At one time it was suggested that the reading room should afford seats for 10 per cent of the student body; now it is proposed by some that there should be accommodations for from 15 to 20 per cent. One university is making preliminary plans for a seat for every student. Does the reading room afford easy access to general works of reference and to literature which a student might wish for general reading? Or are the shelves like those which Barrie mentions in "What Every Woman Knows:" "There is a book case of pitch pine, which contains six hundred books, with glass doors to prevent your getting at them?" Are there regulations to remind you of those in Archbishop Parker's Library at Corpus Christi College, which may be opened only by consent and in the presence of three persons each with a key to one of three locks. The number of hours the reading room is open is very important. Commonly the hours are from 8 a.m. to 10 p.m. The College of William and Mary has found it necessary to keep its library open from eight in the morning to midnight. This has its significance to one evaluating the efficiency of the college. In some colleges the library is open Sunday afternoon. Does the reading room have good light, fresh air, quiet? Are new books invitingly displayed for the inspection of students? Are there bulletins concerning new accessions or suggested reading either for courses or for general culture.

At the delivery desk there are signs of the use of books. The circulation statistics ought to be available; if they are not, the fact is significant. The attitude of the attendants toward students can be observed at this desk. Are the attendants possessed of a desire to serve? Do they cooperate with the librarian and instructors who conduct courses in the use of the library?

Other reading rooms may be found in other buildings. Departmental libraries show much of the quality of the departments concerned. If the books are well cared for, in order, with convenient facilities for consulting or withdrawing them, one gets a different impression from what one gets in an instructor's office where the departmental library is locked up practically as a private collection. In the departmental library and in the instructor's office the presence of journals is significant. On the general policy of departmental libraries discussed in almost every meeting of librarians it is not necessary to comment. The University of Illinois program mentioned by Dr. Works[11] seems to afford an excellent solution for many difficulties.

In the librarian's office there is much evidence of the quality of a library. In classifying books the librarian should treat the collection as a whole, even if departmental collections exist or books are paid for by departmental appropriations. Professors can be of great help in classifying books but the responsibility belongs to the librarian. To do his work well he needs tools which should be at his hand. For cataloging he needs volumes which are to be found in every trained librarian's office. The condition of the catalog and of the cataloging room will inform an observer at once of the condition of things. The system whereby the books are catalogued is significant. The great libraries and the progressive small libraries which expect to grow are using that of the Library of Congress.

Active cooperation with other libraries appears in the records of exchanges kept by the librarian. Interesting evidence of the scholarly activities of students and teachers as well as the resources of the local library can be found. The number of borrowings from the Library of Congress and other great libraries, the names of the persons for whom the loans were secured, the kinds of material are informing. In the university president's report will sometimes be found a statement of exchanges. It is important to note also the loans to other institutions and whatever indication of strength may be therein. While this applies especially to the university it is also more and more true of colleges as their teachers engage in research and as the special collections in college libraries become known to researchers elsewhere.

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[11] Page 67.

In the stacks while one is reading the shelves for purposes above described, it is possible to study the extent to which books are used. Notice the condition of individual bindings. Examine the card in the pocket on the inside back cover, if there is one. Frequently I have picked out a book significant in current thought and examined its card to see how often the book has been used and who used it. Sometimes I have been disappointed to find the record meager. Sometimes the recurrence of a student's name on the cards of significant books has enabled me later in the day to startle a dean or a professor by mentioning the intellectual interests of some particular student. I used to watch the cards in the pockets of books of the University of Chicago library in hope of discovering some intellectual initiative on the part of my students. I was never disappointed and I was always able to make the information count in teaching.

The importance of facilitating the use of books by students and teachers is recognized by the associations in requiring that the library be "professionally administered." For many years the college library was a refuge for superannuated employees of other departments. The elderly professor of Greek who had not enough work to keep him busy, the disabled editor of a denominational journal, the retired loyal alumnus resident in the community, and persons who, like ancient officers in the army, thought that any man could do anything he was ordered to do, have been responsible for most of the failures in the college library. In one college with small funds I found a librarian, whose collection lacked many necessary items, buying publishers' remainders in lots, without knowing what titles were to be included by the bookseller. He was not professionally trained. In another institution I discovered that periodicals were being bound in expensive half-morocco, and that this was one reason why essential books could not be bought. If the librarian had been trained he would have known not only the economy but the superior service which buckram gives. The library in which all books in the main reading room were behind locked doors was managed by an untrained person. The college librarian who when asked what dictionaries were in the library handed me an abridged student's dictionary, who was surprised when by searching I found the Century, and who had never heard of the New English Dictionary, was untrained. The librarian who had arranged his books conveniently to his desk on the basis of twenty years' personal experience in answering calls for them and had broken up his shelving so irregularly that if he had been incapacitated by an automobile accident no one, literally no one, would have known how to find books in his library had had no professional training. In all of these cases, perhaps it is unnecessary to add, the colleges have not yet satisfied the Association of American Universities that their libraries are "professionally administered."

The trained librarian has the same ingenuity in making the best of his equipment that marks the trained professor of physics. If a professional librarian helps to plan a building he is likely to remember the need for a freight entrance of convenient size and accessibility; he will demand space for periodicals; he will place his stacks where they can be effective for all users of them; he will plan his reading room from the point of view of its uses. The trained librarian will develop the character of his book collection. While emphasizing always the service to teachers and students he will discover the value of special collections, care for them and make them accessible. At West Point a trained librarian has revealed an important and hitherto neglected mass of early American newspapers. The trained librarian knows the problems of book selection, classification, cataloguing, circulation. The trained librarian, utterly unlike the ancient caretaker who used to regard the library as a personal possession and who resented the intrusion of readers, seeks to serve, invents ways to induce people to use the books. He provides posters, issues bulletins on new books, bibliographies on special subjects. Alert in feeling current interest in things he posts clippings, pictures, suggestions for related reading.

Even the high schools, encouraged by the North Central Association and the American Library Association, are seeking to find trained librarians. The kind of librarian sought is "someone who combines the knowledge of books and library technique with sufficient knowledge of educational methods to make the library an integral part of the school's educational scheme and not an appendage or an extra curriculum activity." Such a librarian, it is suggested, should have at least four years of college training including 75 semester hours of general subjects, 15 hours of education and 30 hours of library training. The training of college librarians is described by Dr. Works[13] and Mr. Wyer.[14]

The college librarian is primarily an administrator, not a scholar, but none the less an educator. He makes the library useful and urges its use by cooperating with the instructional staff in courses which explain the resources of this important tool. He is immensely important as an aid in bibliography—even more so in the college than in the university. In addition to such direct teaching of students and helping of teachers, he encourages general cultural reading. Some presidents and deans, moreover, will be surprised to find how effective the librarian can be as a personnel officer. Personnel administration is most effective when all administrators and instructors are imbued with the personnel point of view and alert to use its various methods. I remember with pleasure an hour in the library of the University of Richmond when the librarian thought she was showing the resources of the library but when she was also demonstrating the point I am making now. As student after student conferred with her at her desk or as she moved about the reading room to induce their frank and friendly resort to her for suggestions on the work in hand, she unconsciously exhibited to me a very specific and full knowledge of each individual's special interests, ambitions, family history and other matters a dean must know about. I suggest that the college dean will find in the librarian as in the professors and registrar and health officer and Y. M. C. A. officials a colleague possessed of data important in the guidance of men and women. What is true of the high school is true even more of the college, the library is "an integral part of the educational scheme." The trained librarian can make it so.

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[13] Page 90.

[14] J. I. Wyer: "The College and University Library: Manuals of Library Economy." No. 4, 1921. Pp. 9, 24.

Such professionally trained librarians with such libraries as those I have described are expensive. The college budget is a matter which still needs a word. "A definite annual appropriation for the purchase of new books" is the usual demand. The North Central Association adds: "and current periodicals. It is urged that such appropriation be at least $5 per student." Probably this amount was set because of the former practice of charging a $5 library fee. Marginal interests have usually been supported in this way Fees for hospital, gymnasium, natatorium, laboratory, laboratory materials, general lectures, athletics, student publications, student unions, have been collected. In time the enterprises which proved their value became a college responsibility and were included in a single fee charged for tuition and all other matters. Of the four hundred colleges and universities described in "American Universities and Colleges" only 30 specify a library fee. This ranges from $2 to $15 and is commonly $5. The per capita expenditure in Minnesota colleges reported by Dr. R. L. Kelly is as follows: St. Catherine's, $14.59; St. John's, $13.88; St. Mary's, $12.17; St. Teresa's, $10.96; Concordia, $9.58; St. Benedict, $8.65; Carleton, $7.30; Hamline, $3.94; St. Olaf, $3.51. In "Libraries," Vol. 31, p. 151, Patton of Carleton reports an average of $10 a student, $120 a teacher. W. P. Lewis at the New England College Library meeting (reported in "Library Journal," Vol. 51, p. 576), declared that fourteen New England colleges averaged $9.39 a student and $105 a teacher. Betty H. Pritchett of Coe College found that 27 middle western colleges spend $4.87 a student and $75.80 a teacher. Marion J. Ewing of Pomona College reported in May, 1925, that six Congregational colleges averaged $8.46. Karl T. Jacobson[15] found the per capita expenditure to vary from $2.62 to $270.77 and the percentage of the total college expenditures to vary from 1.19 to 8.16.

What should be the percentage of the college budget devoted to the library depends on the condition of the library to begin with and on other factors. The variables are so numerous that one can offer no suggestion. One can say, however, that the importance of the college budget is now generally recognized, thanks especially to the influence of the work of Mr. Trevor Arnett and his important book, "College and University Finance." In making up the budget and in controlling expenditures there is more and more recognition of the importance of not leaving the library until after the stadium is cared for, although one college, not yet on the approved list of the Association of American Universities, advertises a million dollar recreation building containing three gymnasiums, a swimming pool, squash courts, bowling alleys and a golf course, and possesses a library containing 7,500 volumes!

Funds for the purchase of books have been derived from fines for the misuse of library privileges. The sum levied for not returning a book when due is so petty that it has become in many places like the fine collected from rich drivers of fast motor cars—a license to violate the law. Because of the smallness of the income so derived and because of the moral problem indicated, many colleges have abandoned this source of revenue and have instituted another kind of punishment—a limitation of privileges. In some colleges literary societies have devoted to the purchase of library books all fines levied for unparliamentary conduct. President Pell of Converse College has amusing stories to tell of such use of the chairman's power in the literary society to which he belonged at the University of North Carolina. On one occasion a collision between a persistent member and an equally persistent chairman resulted in a fine of $32 which bought library books. Sometimes these literary societies have built up libraries of their own, which later they have given to the college library. Sometimes they subscribed for magazines to be placed in the general reading room. One proved the enlightenment of its youthful membership by subscribing seventy years ago for the New English Dictionary and keeping up the subscription until the great work was completed in the present year. At Howard College in Birmingham, President Dawson has found another source for new books. He has developed an interesting cooperation between the college and one of the Birmingham newspapers. The journal turns over to President Dawson all books received for review. These are assigned to appropriate members of the staff who are glad to read the new books in their fields and to express their opinions of them. Once a week the college manages the literary page, publishing these reviews. The volumes ultimately are deposited in the college library. Gifts from alumni and friends are not always such an embarrassment as I mentioned earlier. One college has built up a great collection by seeking legacies of books on the ground that even the poorest collection usually has in it a useful book or two and the rest can be used for exchange. In these days when many book readers in their flight from apartment to apartment find books a burden and are inclined to agree with the author of "Erewhon" who held that the only ones necessary to own were "Bradshaw" and the "Post Office Directory," perhaps some other college can equal the success of this one. Such ways of securing books, however, must always be less satisfactory than the general practice of including in the college budget a liberal item for the purchase of books and periodicals and for the professional administration which makes them useful.

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[15] K. T. Jacobson: "Mid-West College Library Budgets." *Library Journal*, Mar. 15, 1928, p. 263.

A final word about finance should emphasize the need for expending a larger proportion of the library appropriation for administration. It is easier to get money for books than for service. The increase in the number of books makes necessary more effective methods of making them useful. The college library hardly ever spends as much for service as for books. Dr. Works in his Table H shows that universities and colleges during a five-year period have spent a fairly constant proportion of their library funds on facilitating the use of their resources. The University of North Carolina and the State University of Iowa spend less than half on service, 46.6 per cent and 34.4 per cent respectively. Oberlin spends 72 per cent on service; Rutgers 72 per cent; Cincinnati, 62 per cent; Vassar, 61.9 per cent; Yale, 61.5 per cent; Stanford, 61.5 per cent; Columbia, 61.2 per cent. The public library always has to spend more for administration than for books. The colleges are only just beginning to see what this means.

There are many things about a college library which can be settled only when we have decided what a college library is for. The much discussed problem of duplicates is an example. Shall the college buy large numbers of duplicate copies for the use of students at a particular instant? It is recognized that duplicates do not add to the permanent strength of a collection. Are they rather to be regarded as laboratory materials to be secured from a departmental stock room which in this case might be the general library, a special local library or the college book store, or something like the Central Library of London? The answer must arise from the policy of college libraries and especially that of the particular institution in question.

The influence of the recently established policy of providing free textbooks in the public schools is visible now in the college. It is not merely because an institution like Hunter College provides free textbooks for students; it is because students who have had free textbooks in the public schools have come to expect as much in college. In entering college the students have come to an institution in which textbook conning has given way to the study of many sources. Still the free book idea carries over and the colleges have tried to concede by offering duplicates of the many books the student must use. It has not always been so. The eighteenth century, it has been said, was the period of private libraries, the nineteenth that of public libraries. One might add that thus far the twentieth seems to be that of the popular magazine and the library of a chain drug store. But need we of the college thus relieve the student of any chance to form his own library? Have we not rather a responsibility to teach him both to use college and public libraries for his own progress and pleasure and to surround himself with his own books? The people of Minnesota seem to think there is such an opportunity for the schools. The Minnesota syllabus mentions the student's personal library for grade eleven. At Yale Mr. Keogh has encouraged exhibition of treasures possessed by students. The first exhibition included some very rare and valuable volumes, for a number of Yale undergraduates showed themselves already to be bibliophiles. Persons who demand real books promptly may justify the existence of a first rate book shop in their neighborhood. The presence of such a place in a college community is an excellent sign. Universities and colleges will be stimulated, if they know the cultural effect of Professor Howard M. Jones' bookshop, "The Bull's Head," in the University of North Carolina.

Who can measure the influence of accessibility to a great collection of books? A university, said Carlyle, is a collection of books. Addressing a meeting of an English educational association in 1927 the Hon. Stanley Baldwin dwelt upon the meaning of books in his boyhood. "When I look back on those far distant years I think I can recognize my own good fortune, which may have been shared by many here. I was left to myself to find my own provender in the library. If you do that with a child he will always take the nourishment that is suitable to him. You may leave the child in any library you like, and if that child has the right turn for books he will take the right sustenance and thrive on it." I remember an experience of my sophomore year at the University of Chicago. A half dozen of us —curiously enough we all became college professors—used to meet on the top floor of our oldest dormitory, in Charlie Huston's room. It had the only real fireplace in Snell Hall.

To feed it we used to carry coal from Lake Avenue, a mile away, one man on one side of a half bushel basket and one on the other. In Huston's room the cannel coal burned cheerfully in the gloom which closed in on a student lamp with green shade. Before the fire we sat and smoked. We smoked churchwarden pipes like those depicted in eighteenth century prints; and in them we burned Latakia, which we took from a white labeled tin, because Thackeray smoked Latakia. And while we smoked and peered into the fire, one by the green shaded lamp read to the others. We read good books drawn from the University library. Each rejoiced in the discovery of something to share with his fellows. One night Charlie Huston brought from the library *Blackwood's Magazine* for November, 1898, and said: "Here's something I think is good. Suppose we take turns in reading it." So that group of romantic sophomores in the gloom which wavered about the grate fire, smoked Latakia in their long stemmed clay pipes and heard for the first time a story called "Youth" by an unknown man named Joseph Conrad.

In spite of things I hear about this generation of students I believe they too are finding and enjoying new writers. If their college library gives them the opportunity they can be happy. It need not be so lavish a provision as the Farnsworth Room in the Widener Library or the Upson Room in the University of Minnesota. It may be a special alcove like that very touching Metcalf collection in the University of Richmond to which a father has given real personality by selecting for it from year to year those books which he thinks his son would have enjoyed if he had lived. Give the college student a chance to use books. Give him access to a suitable collection, if not a great one, of live, well distributed volumes bearing specifically on the subjects taught and by providing professional administration, generously supported, help him to enjoy books. Then the library will become a genuine center of the intellectual life of the institution. And even more than ever, anybody, the parent of a prospective student or the agent of a regional association, can measure a college by its library.

DAVID A. ROBERTSON.

Curriculum Revision at Columbia College[1]

THE year 1927-1928 has been occupied not merely with the routine work of administration, and with carrying forward projects already initiated, but to a greater degree than any year for the last two decades with establishing and organizing new enterprises that bid fair to be of far-reaching importance in the development of Columbia College.

In my report for the year 1926–1927 two suggestions were made looking to a more effective organization of the collegiate work. I refer to the proposed survey of the various agencies in the college which have to do with the individual student outside the classroom, and to the proposal that the curriculum of the college be studied, with a view to its reorganization.

Early in the Winter Session the Committee on Instruction authorized the appointment of a committee consisting of Professor J. J. Coss, Chairman; Professor Fife and Mr. Kendall Wissiger of the Southern Bell Telephone Company, who were requested to make a study and report of the work of the various offices having to do with the student in his extra-curriculum interests. This committee called for reports from thirty-one officers of the college, followed by personal interviews with most of them. Those in charge of the athletic and non-athletic extra-curriculum activities, those responsible for the housing and feeding of our students both on college grounds and elsewhere, the various advisers and assistants to the Dean, those interested in the development of religious work, those responsible for the financial side of things, those concerned with the care and maintenance of our material equipment, as well as various other officers whose interests are more remotely related to the student body as members of our social and economic community were included in this list.

The survey was most carefully planned, about two months being taken for its preparation. The report included fifty-four items, some of which contained suggestions for the immediate modification and coordination of our work, others of which look far into the future for their completion. Of these fifty-four items nearly half were immediately adopted and put into operation. Many of the others either make heavier demands upon the budget than we are at present able to meet, or require more than one year for their complete inauguration. The report, however, will remain for some time to come one of the documents which will bear reading and re-reading in order that its sane and constructive plan for a proper coordination of the work surveyed may be kept in mind. Only a negligible number of the suggestions seemed to the Committee on Instruction, to whom the report was made, as either undesirable or impractical. It would not be appropriate at this time even to summarize the recommendations. Suffice it to say that their significance and importance will be felt for many years to come in the more effective functioning of the college.

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[1] From the Report of the Dean for 1927-28.

At the first meeting of the Committee on Instruction held in October, 1927, the desirability of a complete revision and overhauling of the curriculum of the college was agreed upon as the most important work of the year. The committee recognized that the revision of a college curriculum usually involves a long and strenuous altercation between individuals, departments, and interests of various kinds. The committee felt that it would be very desirable to avoid the kind of controversy which produces a maximum of heat and a minimum of light, and which leaves a faculty divided by differences requiring years to reconcile. To this end it was decided not to conduct the study through the medium of formal faculty meetings, and not to carry it forward on principles of deductive reasoning from educational principles. The reasons for this decision lie in the fact that few educational principles are established with sufficient clearness to afford a basis for a united approach by a college faculty to our collegiate problems. Nevertheless, when an individual has once taken a certain position in regard to a principle, however nebulous it may be, it is very difficult to withdraw from that position without apparent defeat, a sensation which no one enjoys. Few of us can completely disassociate a desire to have our own way from a desire to bring about a result which will be to the best interest of our group.

In the light of these considerations the Committee on Instruction decided to ask a group of six members of the staff to meet and discuss the curriculum, and to report their findings to them. This committee consisted of two members of the Committee on Instruction, Professor A. L. Jones and the Dean, and three other members of the staff of the College, Professor H. W. Farwell, Professor E. E. Neff and Mr. D. C. Minor, the last of whom was a recent graduate. A sixth member, Professor E. S. Evenden, was added from the staff of Teachers College, and contributed most effectively to the work of the committee from the point of view represented by that school of the University. In several other institutions similar studies have been accompanied by extensive reports by committees of the student body elaborating their point of view in regard to curriculum matters. It was our wish not to stimulate the students to make such a report, but to have the advantage of the helpful points of view that might be gained from an intimate contact with the students themselves. For this reason the committee selected the recent graduate as one of its members.

The point of departure for the study was found in an examination of the fields of concentration of the juniors and seniors. As a result of an extensive statistical study it turned out that although many of our students were devoting themselves to a thorough and carefully wrought out program of work, altogether too large a number were content to take a good freshman year followed by what amounts to three sophomore years consisting largely of elementary work. This situation was possible on account of the fact that in many of the departments of study the sequential requirement for the degree was sequential only in name. It soon appeared, however, that a study of the curriculum of the last two years inevitably entailed a careful scrutiny of the first two years, with particular reference to the work of pre-professional students. Consequently the committee, which though specifically called upon to make suggestions for a reorganization of the work of the junior and senior years, found itself obliged to consider the entire curriculum of the college.

After prolonged conferences, in which the problem was approached not as an elaboration of educational principles but from the pragmatic point of view of what would work effectively in affording each individual a good collegiate education, certain proposals emerged. A number of largely attended smokers, open to the entire staff, were held at which these proposals were presented—not as resolutions which someone was trying to get through or to which the committee was definitely committed and for which it proposed to stand, but as tentative suggestions on which criticism was invited. Scores of conferences with various departmental officers followed, until finally the Committee on the Curriculum reported their findings to the Committee on Instruction. This committee formulated resolutions for presentation to the faculty of the college at its April meeting, which was the first faculty meeting of the year. Apart from a discussion upon an amendment to one of the resolutions, which was finally rejected by a slight margin, the eleven resolutions presented by the Committee on Instruction were passed almost unanimously and practically without debate, a result which seemed to justify the conference method of going at the problem.

Now that the amendments to the curriculum have been authorized by the faculty it is easy to formulate principles which they illustrate, and to state the advantages both to students and to staff which will accompany the new régime. The new curriculum recognizes the fact that there are three types of students, each one of which is worthy and on each one of which the degrees of the college will gladly be conferred upon the completion of the requirements for the degree. In the first place there is the student who is looking forward to a professional school and who is pointing his entire college work toward a broad and comprehensive preparation for a life of professional usefulness. Closely related to this type is the student who by temperament and ambition is a scholar, and for whom the most effective college course is the one which gives him the opportunity to go far toward the bottom of some field of scholarly interest. There is also the man whose best intellectual development is not obtained through research work or even through "search" work of the kind encouraged by seminars and intensive attention to the cultivation of a narrow field.

In the opinion of the committee, any assumption that the students to whom we wish to give our degree are all embryo scholars who should be tested by a comprehensive examination, on a narrow field of scholarship, is unwarranted. A plan for Columbia College based on this assumption would surely result in a gradual softening of the final examination, rendering it of slight educational significance to the alleged specialist and lowering the standard of accomplishment for the genuine scholars. The administrative device which has been adopted automatically to take care of these various types of students consists in the requirement for the degree of sixty so-called maturity credits. It would scarcely be possible in this report to explain the technique by which this device is expected to accomplish the result which I have mentioned. It will require a few years of experience to determine with assurance whether the plan proposed will be completely effective. It is desirable at this point merely to point out the aim of the committee and to express the hope that the means adopted will be effective for that end.

Closely connected with the question of concentration in the two latter years, with its bearing upon the various types of students to whom we wish to present a college course, is the preliminary program of the freshman and sophomore years. In previous reports the statement has frequently been made that the first two years of college are preeminently opportunities for the discovery of the mind and of the vital motivation of each student both to himself and to his instructors. The solution of the problem of the first two collegiate years hinges upon the organization of a program permitting the student to make a wide survey of various fields of intellectual interests, in order that he may determine the directions which he should finally take. To this end it is necessary that these years should offer material in various fields which will simultaneously provide a sound and broad basis for future scholarly work in any field which the student may select, and a sufficient survey and orientation in these various fields for the individual who does not intend to pursue them further.

The analysis of this twofold aim so far as it had to do with the historical and social sciences has led to a surprising and remarkable result. In the first place the departments of Economics, Government, History, Philosophy, Psychology and Sociology in Columbia College have reached such a degree of mutual understanding that they are able to envisage their problem not in terms of the vested interests of the several departments, but in terms of education of young men. In fact, members of the staff of the college in these departments are pooling their interests to such an extent that one scarcely realizes that they are representing this or that department. One merely observes that they are representing the interests of a broad and useful education. After prolonged conference it turned out that this section of our staff felt that by an extension of the required course in Contemporary Civilization through the freshman and the sophomore years they could simultaneously serve both the interests of the prospective scholar who would specialize in some one of these departments, and also the general student whose intellectual interests lie in other fields. No other course in any of these departments will be offered to freshmen or sophomores. All courses offered by these departments in the two upper years will be built upon Contemporary Civilization A and B, and in these advanced courses a student will have the opportunity to carry his specialized work to any extent that his talents and desires permit.

A similar situation faced the scientific departments, and they are meeting it in a slightly different manner, probably more appropriate to the subject matter involved. This entails the organization of a number of courses in science aimed at the man who does not propose to go into medicine or engineering, or to become a zoologist or a physicist, but who wishes to know what these subjects are about and what place they occupy in the thought of the world of today. Parallel with these general courses which will be open to freshmen and to sophomores, the more intensive and thorough scientific courses in each of these departments will be offered as at present.

In the third grand division of departments, comprising the languages—both ancient and modern—fine arts, and music, little change was made in the requirements for the degree. The discussions held at the staff meetings indicated that the level of accomplishment attained by students who have passed successfully three or four years of a modern language is not too high for the needs of those who would use that language in their other academic work. It is also apparent that this amount of language study is necessary in order to afford a student an introduction to the literature and life of foreign civilizations.

A further evidence of the desire of the faculty to treat subjects of study, rather than narrow departmental fields, is evident in the authorization of so-called reading courses. In the new curriculum the honors courses which for the past eight or ten years have led to the degree with General Honors are withdrawn, in view of the plan to substitute for this type of honors work, departmental honors gained through the medium of seminar work. At the same time the experience both of instructors and students with the method of conducting the honors courses has been so stimulating and productive of scholarly results that it seems desirable not to give up the fruits of that experience. Consequently the Committee on Instruction is authorized to announce courses which should be given jointly by two or more instructors in different departments to a small number of acceptable students of high grade. If, for example, a professor of medieval history and a professor of scholastic philosophy should choose to present an extensive list of readings to students interested in that field they might be authorized to do so. Such courses would meet normally at least once a week, probably in the evening and preferably in surroundings where the atmosphere of a classroom would not serve as a deterrent to free discussion and comfortable posture. By this means the student would have an opportunity to discuss far into the night various aspects of the reading assigned for the week with two or more scholars who approach the subject from slightly different points of view. Such courses would usually be free from lectures, and would serve to stimulate appetite and technique for obtaining a broad and at the same time an intensive knowledge of an important subject. It is not anticipated that there would be more than half a dozen such courses offered at first, partly on account of the difficulties in the way of providing a staff for this sort of instruction since somewhat the same type of professor is needed for this kind of course as for the advanced seminar work.

Another experiment was authorized by the faculty which it is possible to announce in language that leaves one in doubt as to its educational value, but which can be explained in more favorable terms. I refer to the so-called lecture courses which may be sparingly authorized by the Committee on Instruction in fields adapted to this method of presentation. Everyone realizes that the greatest inspiration gained from certain members of the staff is through their ability as expositors. It is becoming trite to remark that the only education which amounts to anything is that which comes from the activities of the boy himself rather than from the teacher. Nowadays college administrators are almost unanimous in their feeling that students should work more and instructors less. At the same time, teal teaching consists in pointing out relations between aspects of a subject which an inexperienced youth would not be likely to observe or to view in proper perspective. There is no doubt that it is possible to obtain a most stimulating and broadening survey of a subject in which one does not have time to do intensive work. Even if one is not particularly interested in a certain field of study it is abundantly worth while for the young man who is just starting his career to hear a master of the subject give the result of his lifetime of research and reflection in broad outlines.

The lecture courses referred to will normally occupy two hours a week, and will afford half credit toward the degree. That is to say, two hours of lecture will count as one point toward the degree, on the understanding that attendance only is required, examinations, quizzes, and required reading being entirely left out of the picture. One of the most obvious advantages of a course of this kind is for the junior, or more particularly the senior, who is principally occupied in a narrow field of intensive work but who wishes to gain a rich but rapid survey of some other field either related to his own or in contrast with it. For example, the student whose major work is in science might well find abundant profit in listening to lectures on the structure of our government, even though he might not have time to take a full course involving the usual preparation. A student whose particular interest is in the economic development of our modern society might well find it useful to attend lectures on the civilization of the Far East. It should be emphasized that these courses will be few in number, and will be offered only on the joint recommendation and approval of the instructor, the department, and the Committee on Instruction.

The Committee on the Curriculum studied carefully the ways and means of meeting the requirements of the courses prescribed for the degree. In this connection the faculty authorized the Committee on Instruction to appoint a committee on achievement tests who should have in their hands the administration of tests on the basis of which properly qualified students might be excused from the various requirements for the degree. It goes without saying that a requirement waived in this manner would not count as points credit toward the degree, but would merely relieve the student of the necessity of sitting through a course in which he was able to demonstrate his competency. It is hoped that this enterprise may be expanded, to the end that students may be stimulated to anticipate by their own reading and reflection the more elementary courses in a variety of departments, in order that they may be brought speedily into contact with work of a more difficult and advanced character.

Although the resolutions passed by the faculty do not on their face seem to affect fundamentally the nature and arrangement of the courses offered by the various departments, it is clear upon a little reflection that the changes are much more fundamental than is at first apparent. In order to build upon the work of the first two years advanced courses which may properly bear maturity credit and which will possess genuine sequential character, most of the departments will need to reorganize their offering in a very thorough-going manner. This work of departmental reorganization is the important task for the coming year. It ought to result in the elimination of a considerable number of courses, the consolidation of others, and an evaluation of the place that each course occupies in the entire scheme. With the main outlines and structure of the curriculum established by the action that has already been taken, this work can be taken up definitely and with a reasonable prospect of a successful outcome.

There is no question that the revision of the curriculum here outlined will greatly enrich the cultural value of the college course. Columbia College will probably be a much better college than it has been. This, however, does not tell the whole story. We want the college not merely to be one which commands the respect of its students and staff, but we want it to inspire their affection. One does not love quality; an individual or an institution that is merely good does not necessarily possess the warmth and the spiritual qualities that cause one to love it. This can only be accomplished through the medium of personality and the material evidence of a sympathetic and friendly attitude. The great problem before Columbia College in the years immediately before us is to supplement its excellence by the efforts of all who have responsibility for the physical comfort of student and teacher in dormitories, offices, classroom, fraternity house, and athletic field. These are the media through which loyalty and affection can be stimulated more than through the formal work of the recitation room or the lecture hall. It is not merely a matter of money, although money is necessary in order to provide and maintain the right atmosphere in the institution. It comes back to an appreciation on the part of administrators, teachers and alumni that the college residence is a period of training for young men who have not only minds but also bodies and spirits, alive to every kind of fine influence.

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Columbia University.

Impersonal Measurement of Teaching[1]

THE teaching efficiency of any instructor may be considered to vary directly with the desirable changes produced in the students by his teaching. Measurement of the improvement of the students requires: First, the use of tests of mental alertness to ascertain the ability of the student to learn; and second, tests to indicate how much the student knows about the subject at the beginning of instruction. Having thus appraised the mental condition of the student at the beginning, a comparable appraisal at the end of the period gives evidence as to what desirable changes have been wrought by the instruction.

In order to test the feasibility of this proposal as a measure of teaching efficiency the Association of Land Grant Colleges undertook the following experiment with cooperation of the chemistry instructors in twenty-eight of the Land-Grant colleges. The subject of general chemistry, as taught in the first year of college, was chosen because it would involve a relatively large number of students. Also since the first step in the study was the construction of an objective measuring device, chemistry was advantageous in that it is a subject well adapted to objective tests of the short-answer type, thus making it possible to cover a large amount of subject matter in a relatively short examination period.

The experiment consisted in giving to all the students of the instructors taking part the same standardized test at the end of the year's course in chemistry. This has been done for two consecutive years. Arrangements have already been made to continue the study for another year, extending it to cover economics and organic chemistry instead of general chemistry.

The test used in this study was a general chemistry test.

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[1] Report presented to the Association of Land Grant Colleges, Washington, D. C., Nov. 16, 1928.

The content of the test[2] was determined by an analysis of books most commonly used in chemistry classes. It was designed to cover the following subjects: (1) Elements and compounds, (*a*) history, (*b*) occurrence, (*c*) physical properties, (*d*) chemical properties, (*e*) uses, (*f*) laboratory preparation, (*g*) commercial preparation; (2) Principles; (3) Formulas; (4) Equations; and (5) Problems.

I. DISTRIBUTION OF SCORES AND NORMS ON THE TEST

The test was given to 6,667 students in 28 institutions at the end of the first year of college chemistry. The median or middle score of all cases was 63, with a possible maximum of 150. Figure 1 shows the distribution of scores. The line marked Q_1 divides the lower quarter of the group from the rest of the distribution. One-fourth of the students make a score of 44.87 and below, three-fourths make above 44.87. The Median line (63) divides the group in half, one-half the students falling below that score and one-half above. The

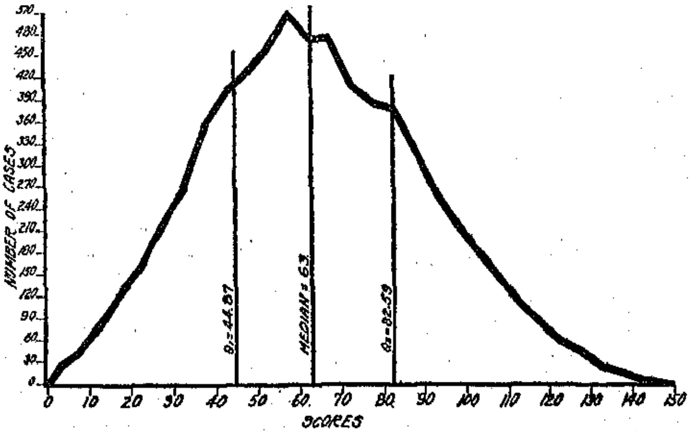

FIG. 1.—DISTRIBUTION OF 6667 CASES ON GENERAL CHEMISTRY TEST.

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[2] The test on general chemistry was prepared by Dr. F. A. Moss W. M. Loman, W. Middleton, and H. F. Hubbard. The tests were scored and the data tabulated in the Psychology laboratory of George Washington University. Funds for carrying on the study were made available through the American Council on Education.

Q_3 line divides the upper quarter of the group from the rest of the distribution. Tables 1 and 2 give the norms or standards on the test, based on the scores of the 6,667 cases.

TABLE 1.—*Median Scores and Semi-Interquartile Range*

	No. Cases	*Median*	*Q*
Those having had 1 year high school chemestry and 1 year college chemistry......	3079	73	18.9
Those having had 1 year college chemistry (no high school chemistry)	3588	56	16.4
Total (both groups together).......	6667	63	18.8

TABLE 2.—*Percentile Scores*

Groups	*Percentiles*									
	5	10	15	20	25	30	35	40	45	50
One year college and high school......	29	38	45	50	54	58	62	66	69	73
One year college only............	18	25	31	36	39	42	46	49	52	56
Total...........	22	30	36	41	45	49	52	56	59	63

Groups	*Percentiles*								
	55	60	65	70	75	80	85	90	95
One year college and high school..............	77	80	84	88	92	97	103	109	117
One year college only...	59	62	65	68	72	76	82	89	98
Total...............	66	70	74	78	83	87	93	100	111

The median for the whole group was 63, and the Q, or number of points above and below the median it is necessary to go to get one-half the cases, was 18.8 Table 2 shows the percentiles for the different groups. For examples, 5 per cent of the whole group made a score of 22 or less, 25 per cent made a score of 45 or less, while the scores of 95 per cent of the cases were below 112. The tables also show the difference between those who had had chemistry in high school and those who had not.

Reliability of the test.—The reliability of the test, that is, the amount of agreement between results secured from two or more applications of the test to the same students by the same examiner, is indicated by the reliability coefficient of .90.

Validity of the test.—The validity of the test or the extent to which the test measures knowledge of general chemistry is indicated by the fact that the chemistry test scores correlate .638 with the chemistry grades assigned by the instructors.

II. COMPARISON OF TWENTY-EIGHT LAND GRANT COLLEGES IN RAW SCORES ON THE CHEMISTRY TEST

The test was given at the close of the school year in twenty-eight different Land-Grant colleges. The test was admin-

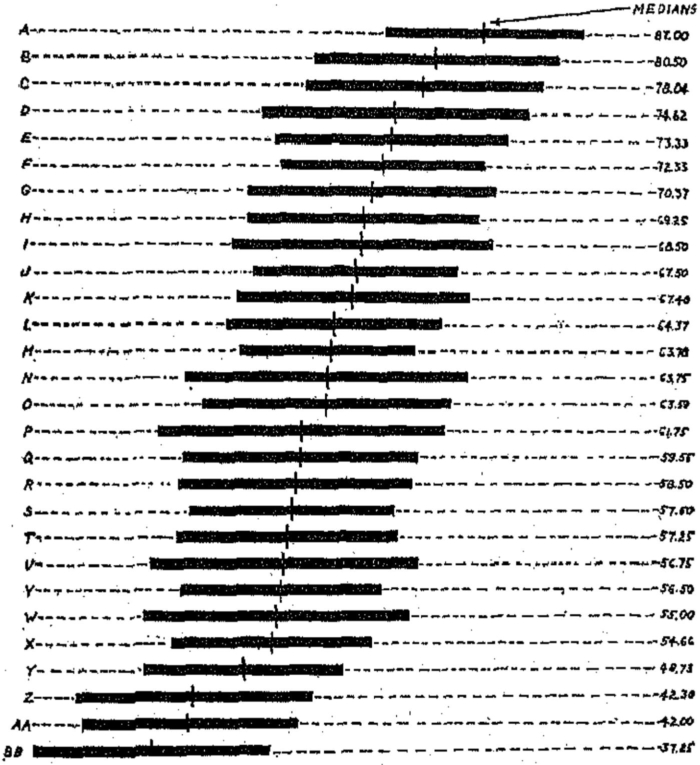

FIG. 2.—RANGE OF SCORES AND MEDIANS

istered under standard conditions in each instance, the same time being allowed and the same directions being given in each institution. Figure 2 shows the relative standing of these twenty-eight colleges. The length of each bar in the figure represents the range of scores which includes the middle 50 per cent of students in each college. The right end of each bar represents the point above which the upper quarter of students falls, and the left end of each bar represents the point below which the lower quarter falls. The line across each bar indicates the median score for each institution.

The twenty-eight institutions differed very markedly in the average amount of chemistry which their students know. The median scores range from as low as 37.25 in one college to as high as 87.00 in another. It will be noted in the chart that the lowest quarter in some of the higher institutions is superior to the highest quarter in some of the lower institutions. This clearly indicates the great inequality of the chemistry departments.

III. COMPARISONS OF SECTIONS OF THE COUNTRY IN CHEMISTRY ACHIEVEMENT

By dividing the twenty-eight institutions into four groups it was possible to compare different sections of the country. The schools were divided into a *North Atlantic* group, *Southern* group, *Middle West* group, and a *Far West* group. In the North Atlantic group the following seven schools were included: Cornell, Delaware, Maryland, Massachusetts, New Hampshire, Pennsylvania, Rutgers. The Southern group was composed of the seven following: Alabama, Georgia, Kentucky, North Carolina, Texas, Virginia, and West Virginia. The following six made up the Middle West group: Arkansas, Kansas, Missouri, Nebraska, Oklahoma, and Purdue. The Far West group consisted of eight institutions as follows: Arizona, Idaho, Montana (two schools), Nevada, New Mexico, Oregon, and Washington. Table 3 shows the relative standing of these sections of the country as indicated by chemistry scores.

TABLE 3.—*Comparison of Different Sections of the Country in Raw Scores on Chemistry Test*

Section of the country	Median score	Q_1	Q_3	Q	Number cases
North Atlantic...........	70	52	90	19	1613
Southern................	59	41	78	18.5	1984
Middle West.............	56	39	74	17	1730
Far West................	70	51	88	18.5	1340

The sectional differences are interesting. The North Atlantic and Far West both have the high median score of 70. These sections make a distinctly better showing than the other sections.

IV. COMPARISON OF THOSE WHO HAVE HAD CHEMISTRY IN HIGH SCHOOL WITH THOSE WHO HAVE HAD NO HIGH SCHOOL CHEMISTRY

As indicated in Tables 1 and 2, approximately half of the students included in the study had chemistry in high school before taking the college course. The average chemistry test score of those who had had high school chemistry is 17 points above the average score of those who had not had high school chemistry. As will be shown in subsequent sections of the report, this item is of considerable importance, and it will partially explain the relatively poor showing of the colleges in those sections of the country where chemistry is not generally given in high school. In estimating teaching efficiency, care was taken to correct the raw scores for high school chemistry.

V. MEASUREMENT OF TEACHING EFFICIENCY

The efficiency of any instructor here considered to be directly proportional to the amount of knowledge gained by the students as a result of his teaching. If three instructors have classes of the same size, the same average intelligence, and the same previous training in high school chemistry, a fair appraisal of the relative teaching efficiency of these three instructors may be made by giving their students the same objective test at the end of the year's instruction. The teacher whose students make highest scores on the test may fairly be rated as the best teacher while he whose students make lowest scores is clearly less efficient.

Owing to the fact that about half the students in this study had chemistry in high school, it is quite obvious that if an instructor has a class composed largely of such students, he will have a distinct advantage over an instructor whose students have had no high school chemistry. This makes it impossible to estimate the efficiency of teaching by the raw chemistry scores of the students. But it is easy to correct for this variable. Inasmuch as the average score of those who had high school chemistry is 17 points more than the average score of those who did not have high school chemistry, the correction was made by deducting an average of 17 points from the scores of the students who had had high school chemistry. The averages of these corrected scores are given in the eighth column of Table 4.

It is also generally recognized that some students have much more native ability or intelligence than others, and it is obvious that if an instructor happens to have a larger number of students of high intelligence, while his colleague has a class of relatively low intelligence, he whose students possess the higher intelligence will have the advantage. But this likewise can be corrected for in estimating teaching efficiency. To do this it is necessary to compute the coefficient of correlation between the scores made on the chemistry test by the students and their intelligence. Of the eleven schools used in the part of the study dealing with teaching efficiency all but two used the American Council on Education Psychological Examination. For those using the American Council Test, the correlation between chemistry test scores and the intelligence examination was .524. This would indicate that intelligence affected the chemistry scores considerably, but to be objective it is necessary to find the exact amount of influence it had. This was done by computing the regression coefficient, and this showed that a change of one point in intelligence affected the chemistry score by .32. For example, if an instructor's class was 1.0 point above the average for all instructors' classes in intelligence, then his chemistry median should be penalized .32 to correct for the superior intelligence, and conversely, if his students were 1.0 point below the average in intelligence he would have .32 added to his chemistry median. This was done and the ninth column in Table 4 shows the finally corrected chemistry medians. These corrected medians give relative efficiency measures of the instructors in chemistry.

TABLE 4.—*Comparison of Efficiency of Instructors*

Instructor	Degree of Instructor	Rank of Instructor	Experience of Instructor (years)	Teaching Load (hours per week)	Intelligence Median	Chemistry Median (Uncorrected)	Chemistry Median (corrected for high school)	Chemistry Median (corrected for h. s. and intelligence)
				College A				
A	M.S.	Instructor	2	14.5	110.4	84.0	75.5	72.27
B	Ph.D.	Asst. prof.	5	14	105.6	81.5	76.25	74.55
C	B.S.	Instructor	2	10	127.3	105	88	79.36
C	B.S.	Instructor	2	10	127.3	105	88	79.36
D	M.A.	Instructor	1	12.5	118.8	77.5	63.83	57.91
E	M.S.	Instructor	5	21	107.7	65	57	54.63
F	B.S.	Instructor	3	20	113.2	79	68	63.87
G	B.A.	Instructor	4	18	107.6	84.5	76.5	74.16
H	B.S.	Instructor	15	21	104.9	75	64	62.53
I	M.S.	Instructor	3	21	117.4	83.5	77.25	71.78
J	Ph.D.	Assoc. prof.	14	15	101.3	66.75	59.5	59.18
K	B.S.	Instructor	7	18	80	69	68	74.5
L	M.A.	Instructor	2	21	115.7	91	80	75.07
	Averages	....	......	....	109.6	78.04	71.07	68.09
				College B				
A	Ph.D.	Asst. prof.	11	18	125	99	82	63
B	M.S.	Instructor	6	18	99	78	62	62
C	M.S.	Asst. prof.	4.5	20	95	73	56	59
C	M.S.	Asst. prof.	4.5	20	95	73	56	59
D	M.S.	Asst. prof.	2.5	20	86.5	61	45	54
E	M.A.	Asst. prof.	13	18	94	63.7	49	52.7
F	M.S.	Instructor	3	20	102	66	52	50
G	M.S.	Instructor	8	18	91.5	49	37	42.5
	Averages	....	......	....	99	69.9	54.7	54.6

For each instructor included in the study a record like those given in Table 4 was made. The table shows the record for two typical institutions. The last column of the table contains the final figures representing relative efficiency of the instructors. By reference to this column it can be seen that the variations in efficiency of instruction within the same institution and the variations in efficiency from one institution to another are quite large. Taking all the instructors represented, the efficiencies as indicated by corrected median scores on the chemistry test range from 37 to 79.

VI. THE EFFECT OF TYPE OF DEPARTMENTAL ORGANIZATION ON TEACHING EFFICIENCY

The study revealed three common types of departmental organization. In some of the large institutions one man gave all the lectures and his assistants handled the laboratory; in other large institutions each instructor was responsible for both the didactic and laboratory work of a definite group of students; whereas in the smaller institutions, we found in many instances only one man in the department. A comparative showing of these respective types of organization is indicated in Table 5.

TABLE 5.—*Relation of Departmental Organization to Efficiency*

Type of organization	*Average efficiency shown by corrected test medians*
Large institutions One lecturer.......	46.62
Large institutions Several instructors..	55.22
Small institutions One instructor.....	48.10

VII. THE EFFECT OF SIZE OF CLASS ON TEACHING EFFICIENCY

The effect of size of class on teaching efficiency is indicated in Table 6. It should be noticed that there is a tendency for the teaching efficiency to decrease as the size of the class increases above 30 or 40.

TABLE 6.—*Relation of Number in Class to Efficiency*

Number in class	*Average efficiency shown by corrected test medians*
20 and below	71.62
21 to 40	60.16
41 to 60	49.05
61 to 80	49.52
Over 80	46.62

VIII. THE RELATION OF DEGREES, RANK, TEACHING EXPERIENCE, AND TEACHING LOAD OF THE INSTRUCTOR TO EFFICIENCY

A study was made of the relative efficiency of instructors with Ph.D. degrees and Master's degrees. There were insufficient cases with Bachelor's degrees to make a reliable comparison with this group. The average efficiency in terms of corrected chemistry medians of the students for the Ph.D. instructors was 52.62 and for the Master degree instructors was 51.91. The degree of the instructor in these cases seems to have little effect on the efficiency.

A study was next made of the relation of the rank of the instructor to teaching efficiency. This study showed average efficiencies in terms of corrected test medians as follows: Professors, 50.13; Associate Professors, 54.15; Assistant Professors, 54.26; Instructors, 54.74. In these cases there is apparently very little effect of rank on teaching efficiency. The one exception that may be noted is in the case of those with the rank of professor. There was a slight tendency for the professors to be more inefficient than either the associate professors, assistant professors, or instructors. This might be partly due to the additional duties of the professor, but is probably more to be explained by a general slowing up as indicated in the next section.

A study was also made of the relation of length of teaching experience to efficiency. The results, in terms of corrected test medians, were 55.68 for the first eleven years, and 48.82 for twelve or more years. This indicates that after eleven years there is a tendency for teaching efficiency gradually to decrease. This may be due to lack of interest on the instructor's part, or to the fact that he is out of touch with some of the modern developments, or to the increasing physical disabilities which affect his efficiency. There are, of course, marked exceptions in individual cases; the least efficient one of those studied happens to be one who has taught only two years, and also the most efficient one happens to be an instructor who had had just two years teaching experience.

A further study was made of the relation of teaching efficiency to teaching load, teaching load being measured in the number of hours per week taught. The study shows relative averages in terms of corrected chemistry test medians as follows: Those teaching under 14 hours, 52.55; those teaching between 14 and 18 hours, 57.32; and those teaching over 18 hours, 51.64.

A reliable method of measuring teaching efficiency would make it possible to promote men for success in teaching. Success in research is objectively demonstrable by the recognition won from learned societies. Who is so successful a teacher has remained a matter of personal judgment. Objective methods of appraising teaching would undoubtedly encourage initiative and originality among teachers and stimulate them to higher proficiency.

F. A. MOSS, WM. LOMAN, THELMA HUNT,
George Washington University.

Self-Survey in Urban Universities[1]

THE term "self-survey" may be defined as a study or studies by colleges themselves of themselves, either continuous or periodical in character. It may be directed by an outsider or an insider, but should be carried on by regular members of the faculty or administration who subsequently will have the responsibility of putting suggested changes into practice.

It is particularly apropos to discuss such a subject in a convention of urban universities, because permanent self-surveying organizations are likely to be more feasible in institutions represented here and others of similar size and standing although certainly not more necessary than in smaller institutions.

Colleges can helpfully and constructively study college problems only by applying to themselves the principles of scientific analysis and observation that higher education applies to the rest of the universe. With the aid of educational and vocational counselors, the better students who are about to invest time, money, and opportunity are beginning to apply principles of scientific management in the selection of their colleges and their courses. Donors and taxpayers are asking for concrete proof of the faith placed in our colleges. The public press finds that college criticism is good copy, and the very existence of the halo that has surrounded our venerable institutions seems at the present time to be endangered. Some agency in the university should take the responsibility of finding the facts and presenting them properly to the parties concerned.

Surveys of institutions and systems of higher education have been advocated and carried out in the attempt to set the house in order, but I believe you will agree with me that the reforms advocated by outside professional surveyors have had only a fighting chance of adoption and in many cases have had only a temporary salutary effect. It seems to me that the greatest barrier militating against the success of the professional survey is a psychological one. To be criticized by strangers is comparable to being forced to take bad medicine. Even though the facts be present in quantities sufficient to convince an unbiased surveyor that something is wrong, the individuals affected in the survey, consciously or unconsciously, tend to take the defensive and adopt the "show me" attitude.

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[1] Address delivered at the annual meeting of the Association of Urban Universities, New York, November 16, 1928.

Convinced that the better approach to institutional growth is through self-analysis, the trustees of the University of Pittsburgh, on the recommendation of Chancellor Bowman and Executive Secretary Gow, two years ago passed a resolution and provided a generous enabling budget to establish a Division of Research in Higher Education. The function of this division was to provide a permanent self-surveying organization which should take a constructively critical position and investigate pressing educational problems as they arose in the institution, isolate them, and, wherever possible, subject them to objective study and experimentation.

While this division is by no means the first agency established as a permanent self-surveying body, it is perhaps unique in its organization and method of conducting its work. With your permission, I shall give a brief description of it, indicating some of its methods as an example of a self-surveying body.

Starting in 1926 with a carte blanche, it was possible before deciding on definite policies to take advantage of visits to the universities of Columbia, Chicago, Purdue, Minnesota and others where research in higher education had already made some progress.

Our first step was to organize a permanent research steering committee, composed of the deans of The College, Schools of Engineering and Mines, School of Education, and School of Business Administration to advise the division on matters of general policy. The Executive Secretary of the University is chairman of this committee. Major problems are proposed to this committee before they are accepted by the Division of Research. On each problem upon which research is being conducted, a committee of faculty members and administrative officers is appointed. The members of these committees are chosen in the main from the field in which the problem originates.

As a guide to determine the function of the division, the following objectives were set up:

1. To provide means for the study of problems of the university which bear on the efficiency of the organization and the happiness of the personnel.

2. To provide student personnel service of a fact-finding nature for deans and counselors.

3. To encourage good teaching and provide means for experimentation in this field.

4. To establish a center in which information about this and other institutions may be collected and made available to the faculty and student body.

5. To encourage both private and committee research in problems of higher education by the faculty and to provide assistance wherever possible.

These guide-posts have so far proved adequate for our purpose.

Administratively, the Division of Research is a part of the office of the Executive Secretary of the University but, in sharp contrast to the function of the latter, is not responsponsible for applying the results of its work. The division carries on research; it is not an administrative body. This has proved to be a wise policy. Time and again, members of our division have been urged to put into practice a new plan suggested after the study of a certain problem, but in every case we have followed the policy of merely standing by.

Two cases will illustrate the point. One of our major problems during the past two years has been to conduct preliminary surveys for the establishment of junior college centers, one at Johnstown, one at Uniontown, and one at at Erie, Pennsylvania. After these surveys were complete, two administrative avenues were open to the university.

The easier one, perhaps, would have been to place the surveyors who were familiar with the territory in charge of each junior college center for a time until the project got under way. But our policy running counter to this proposal, the less expeditious but wiser plan of placing a permanent administrator in immediate charge was adopted. At present the university is conducting for the first year junior college centers at Uniontown and Erie, and for the second year at Johnstown with total enrolments of 432 full-time day students, and 467 late afternoon and evening students.

Another problem of considerable importance which illustrates the desirability of guarding against encroachment of administrative duties was a study of problems of educational guidance and subsequent organization of the University Personnel Council. After making several analytical studies of student personnel, it became apparent that in order to remedy certain defects which these studies brought to light, a council of personnel and service division officers[2] should be created. To serve in the capacity of Personnel Director for this group would seem to be a logical procedure if one were to combine administrative work with research duties, but it was clear that this was not a function of our division.

The members of the division have no teaching loads except such as are self-imposed as an aid to conducting the work of the division. At the present time two courses are conducted, one in College Organization and Management and one in Educational Personnel Methods. Each person enrolled undertakes a problem and is given the opportunity to work with a research committee throughout the semester. University records, facts and private library collections germane to the problems are made available.

While the Division of Research, as such, is an autonomous unit of the university, the courses offered are administratively placed in a newly formed Department of Higher Education in the School of Education. In the future, students working with the Division of Research will take their degrees in the School of Education.

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[2] Service divisions include such agencies as Student Health Service, psychologist, Division of Research, etc.

With a staff of four full-time persons and two graduate assistants, supplemented by clerical and statistical help, it is possible to give the faculty and administration help on a variety of problems.

The aim of the division is to choose problems of interest to the university as a whole rather than to further the interests of a single individual or small groups within the university. Representative among such problems may be mentioned: A location study of junior colleges; problems of student personnel; studies of foreign and second-generation students; unit cost studies; study of health and recreational facilities; university publicity; an inquiry into graduate examinations; conduct of remedial reading classes for slow readers; administration of placement examinations to 1,500 freshmen and analysis of results; studies of scholarship of athletes versus non-athletes; development of trade tests for selecting vocational teachers; and the installation of the American Council on Education Cumulative Personnel Record System. A good example of the service that a university division concerned with self-surveys can give to an institution of higher education is illustrated by the University of Pittsburgh's part in the Pennsylvania Study of the Relations between Secondary and Higher Education, under the joint auspices of the Pennsylvania College Presidents' Association, the Pennsylvania Department of Public Instruction, and the Carnegie Foundation for the Advancement of Teaching. It has been a task of considerable proportions. Under the auspices of a university committee, our division has sponsored this program in a whole-hearted manner and, in addition, has worked cooperatively with the public school system of Pittsburgh in the installation and interpretation of their part in the study. Dr. William S. Learned, Director of the Pennsylvania Study, representing the Carnegie Foundation for the Advancement of Teaching, and Dr. Ben D. Wood of Columbia University, educational adviser, will report this study in due time.

Following the success of experiments by Book,[3] Averill and Mueller,[4] E. S. Jones,[5] and Ferguson,[6] similar experiments for increasing reading ability were conducted at the University of Pittsburgh,[7] in the spring of 1928.

Two experimental classes of undergraduate probationers were conducted, each with a comparable control group. Both classes met four days per week for eight weeks during the second semester of 1928. The need for such classes was determined by the scores made on the Whipple High School and College Reading Test.

Form A was given to the experimental and control groups as an initial test, and Form B, as a final test. Specific exercises and drills upon the fundamental reading skills were given daily. Factual material, such as articles from the *Literary Digest*, mimeographed sheets of special articles, the *United States Daily* and the *Boston Transcript* were used. In the first group there were 25 persons; in the second group there were 13 persons. The per cent of improvement of the first experimental group over the control group was 57 per cent; and for the second the improvement was 31.75 per cent. The same teaching methods, testing devices, scoring and materials were used in both experiments. These experiments will soon be published in detail.

The studies of unit costs at the University of Pittsburgh have been particularly helpful in budget making. The system which we have developed makes use of Hollerith cards and is relatively inexpensive.

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[3] Book, W. F.: "The Amount of Improvement Made in Learning to Read by Four Groups of College Students." *School and Society*, August 20, 1927.

[4] Averill, L. A. and Mueller, A. P.: "The Effect of Practice on the Improvement of Silent Reading of Adults." *Jr. of Educational Research*, February, 1928.

[5] Jones, Edward S.: "Testing and Training the Inferior Freshman." University of Buffalo Studies, Volume V, April, 1927.

[6] Ferguson, Jessie: "Probation Students Under Guidance." *Educational Review*, April, 1928.

[7] French, Helen Aiken: "Increasing Reading Ability of Adults." University of Pittsburgh, 1928.

The importance of the application of scientific method in higher education is slowly being recognized, but as yet few administrators have been far-sighted enough to wish to undertake the slow painstaking and expensive procedure involved in arriving at solutions by this method. Apropos of the scientific method, we find this quotation from Forest Ray Moulton, astronomer at the University of Chicago:

"The successes of science invite attention to its method. That science depends upon observations and experiments is known to everyone, but those who have not been engaged in its pursuit cannot realize the scrupulous care with which experiments and observations are made, the faithfulness with which they are recorded, the variety of conditions under which they are repeated, and the caution with which conclusions are drawn from them. Science does not bow down before precedent or custom or dogma; it exalts the truth and honestly seeks it." To give an example, "the orbit of the moon about the earth is roughly elliptical; but it has many hundreds of minor irregularities, due to the attraction of the sun and of the equatorial bulge of the earth. The complexity of the problem is measured by the fact that Delaunay's expression for the distance, longitude, and latitude of the moon could not be printed in a volume the size of this one!"[8] (566 pages). What an answer for a problem!

Yet it does not seem strange that foremost scientists in our universities, in making decisions which shape the lives of hundreds of human personalities, solve some of their most intricate educational problems with a snap of the finger or, at most, the pseudo-scientific deliberations of a faculty meeting, without even a semblance of the data and experimentation that might be obtained by intelligent direction and effort?

An institution which establishes a self-surveying service frankly recognizes its imperfections and by its willingness to invest the necessary time and money tends to develop an attitude of self-criticism and experimentation which is the basis of sound professional growth. If present signs are not misleading, another generation will show a decided change in our approach to the solution of problems of higher education.

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[8] Moulton, Forest Ray: "The Nature of the World and Man." H. H. Newman, Editor, University of Chicago Press. Pages 3, 4, and 9.

Summarizing now briefly, I shall restate the policies under which our division operates at the University of Pittsburgh, which policies we believe to be sound.

1. That the self-survey method is an improvement over the outside survey, although educational experts who know survey technique should be called in frequently in an advisory capacity.

2. That the self-survey should be continuous and not sporadic.

3. That a definite organization should be set up in the institution and given official administrative recognition both authoritative and financial commensurate with its responsibilities.

4. That no teaching should be required of the staff of the division except that which contributes directly to the advancement of their work.

5. That it should do its work not apart from the faculty but in cooperation with it.

6. That the division should not be charged with the task of the administration of its proposals, except in so far as new administrative technique is necessary as a part of the proposal and is requested by the university administration.

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University of Pittsburgh.

Diagnostic Value of the Vocational Interest Test[1]

Summary.—One hundred and fifty-six seniors of the class of 1927 filled out the Vocational Interest blank a few weeks before graduation. In January 1928 they reported their occupational choice. Comparison of these two sets of data shows:

Forty-six per cent have entered the occupation on which they scored highest in the test.

Twenty per cent have entered the occupation on which they scored second highest.

Eleven per cent have entered the occupation on which they scored third highest.

Seventy-seven per cent have entered the occupation on which they scored first, second or third highest from among fifteen different occupations. Only 18 per cent have entered an occupation for which, according to the test, they have no interest. When several modifying factors are taken into consideration, as outlined below, the results appear still better.

Considering the fact that many of these men will change their occupation in the next few years and that some have entered occupations they are not interested in due to family and financial considerations, these results are about as satisfactory as can be expected from a valid vocational guidance test.

Procedure.—In March, 1927, all the seniors at Stanford were requested to fill out the Vocational Interest blank. Two hundred and eighty-seven complied, a few more than two-thirds. They were asked to indicate their vocational choice at that time and also during January, 1928. None of these men knew the results of the test when they filled out the questionnaires in January, and only five have been notified since that date. A considerable number are pursuing graduate work, particularly in medicine and law, so that their statements in January of this year reflect their future occupational plans. The reports from the remainder of the students are colored more or less by their first jobs.

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[1] Presented in part before the Western Psychological Association, August 4, 1928.

The interest blanks have been scored for interest in fifteen occupations: Advertising (Ad), architect (Arch), artist (painter) (R), certified public accountant (CPA), chemist (C), engineer (E), farmer (F), journalist (newspaper editor) (J), lawyer (L), life insurance salesman (L. I.), minister (M), phychologist (Psy), purchasing agent (P. A.), school teacher (T),[2] and Y. M. C. A. general secretary (Y). These occupations are referred to in the tables by the above abbreviations.

The weights to be given each item on the blank for each occupational scoring have been based upon data from adult men known to be successful in the occupation. The scales are not based upon the students' blanks in any way whatever. Consequently, if a student appears to have the interests of an engineer, for example, it means he has checked the blank in the same way that the average successful engineer checked it.

The raw scores are expressed in terms of the ratings A, B+, B, B−, and C. A rating of A means the individual has the interests of that occupational group, a rating of C means he does not have those interests and a rating of B is intermediate, meaning he probably has those interests but we cannot be sure. Statistically speaking the ratings represent raw scores falling between these limits:

Rating of A above −1Q on distribution of criterion group.
Rating of B+ between −1Q and −2Q criterion group.
Rating of B between −2Q and −3Q criterion group.
Rating of B− between −3Q and −3.5Q criterion group.
Rating of C below −3.5Q.[3]

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[2] Nearly all the members of the criterion group for school teachers are members of Phi Delta Kappa. Nearly all these men are, or intend to be, school administrators or professors of education in normal schools or departments of education.

[3] Due to certain complications, which it is not necessary to consider here, the limits of the B− and C ratings vary somewhat from the above in a few cases, Lawyers and journalists appear to be rather heterogeneous groups. Following approximately the above scheme results in giving men a rating of B− in law when they score between 0 and −68 and in giving men a rating of B in journalism when they score between 18 and −70 and a rating of B− when they score between −70 and −146. Negative scores should be rated C. But it seems best to follow the above scheme for the present, although it results in awarding a very large number of B and B− ratings in law and journalism.

TABLE I.—*Showing how 15 Students Rate on the Interest Test*

Code No.	Occupational choice	Occupational ratings															Ranking of chosen occupation in the test
		R	Ad	L	J	CPA	Chem.	E	F	Arch.	Psy.	LI	PA	M	T	Y	
161	?												B		B−		
60	?			B	B	B−						B+		B	B+	A	
234	?			B+	B+	B	B+	B+		B−	B+				B		
53	Elect. Eng.			B−	B−		A−	A	B+				B				1
89	Mech. Eng.						A	B+	B+		B+		B+	B−	A−	B	3
193	Chemistry			B			A	B		B−	B		B+				1
185	Chemistry ?						B	B+	A								3
277	Architect	B			B−		A	A	B+	A	B		B−				1
200	Law		B−	A	B+	B									B		1
275	Law				B									B	B−	B	10
197	Writer	A	A	A	A					B+	B−						1
283	Life Ins.		B−	B	B−							A	B−	B−	B	B+	1
238	Marketing											B+	A				[illegible]
33	Advertising			B−					B−			B+	B+				10
14	Investments ?			B+					B			A	A				

Extent to which Interest Test Ratings Agree with Occupational Choices.—In Table 1 is set forth the detailed ratings of fifteen students in order to give some idea of all the various complications that are encountered. The particular records in this table have been selected in order to illustrate as many points as possible. Conclusions are given below and should not be drawn from these few selected cases.

Students Nos. 161, 60 and 234 reported no occupational choice. No. 161 has apparently no interest in any of these fifteen occupations, unless it is in that of a purchasing agent (rating B) or school teacher (rating B–). No. 60 rates highest as a Y. M. C. A. secretary, and next highest as a school teacher or life insurance salesman, occupations he has possibly not yet considered. No. 234 may not have yet decided upon an occupation because he has rather mild interests equally divided between law, journalism, chemistry, engineering and psychology, a rather unusual combination.

No. 53 is entering the occupation upon which he rates highest, i.e., engineering. No. 89, on the other hand, rates third in engineering; chemistry and teaching scoring higher. Of the two men entering chemistry, No. 193 rates highest in this occupation, whereas No. 185 rates third in chemistry and that only a rating of B. Possibly his doubt about entering this field after majoring in it, indicated by the question mark after chemistry in column two, is expressed in the interest test by his B rating. No. 277, who plans to be an architect, rates A in chemistry, engineering and architecture, but the latter is proportionately higher.

The rating of No. 200 is typical of one entering law, whereas the rating of No. 275 is not. We anticipate the latter will change his plans before long. No. 197 has a very unusual record; the four A ratings rank in order: Journalism, advertising, law, and art.

We have no way of scoring for interest in marketing or the investment business, hence the lack of ranking opposite the records of Nos. 238 and 14. Men interested in selling usually rate B or higher in both life insurance selling and purchasing, as shown here, but many not interested in selling also rate fairly high in the latter.

The last column of Table 1 gives the relative standing of the occupation the student has chosen in comparison with the other fifteen. Thus No. 53, who plans to be an electrical engineer, rates highest according to the interest test in engineering; whereas No. 89, who plans to be a mechanical engineer, rates highest in chemistry, second highest in teaching, and only third in engineering.

Table 2 gives the percentage of Stanford seniors who have the interest of men engaged in these fifteen occupations. The largest number are interested in law or journalism, between which there is a very high correlation (over .80). Consequently the same men tend to rate high in both occupations. The same situation holds in the case of interest in farming,[5] engineering and chemistry. The high intercorrelation among the three occupations explains in part the surprising number of Stanford men interested in farming, although there is no department of agriculture at the institution. Such men are largely found among those majoring in engineering and chemistry.

TABLE 2.—*Per Cent of Stanford Seniors* (1927) *Who Have the Interests of Men Engaged in Fifteen Different Occupations.*

	Per cent who rate	
Occupations	*A*	*B*
Law	9	60[4]
Journalism	11	48[4]
Farming	8	41
Engineering	13	30
Life Insurance Selling	5	31
Chemistry	10	25
Purchasing Agent	5	29
Advertising	0	29
Teaching	3	20
Psychology	2	17
Y. M. C. A. Secretary	2	14
Architect	1	13
Public Accounting	0	11
Ministry	1	9
Art (painting)	1	6

Interest in entering business is best reflected (although not at all adequately) by interest in selling life insurance, the work of a purchasing agent and in advertising. Seventy-four per cent of the Stanford seniors planning to enter business rate A or B in purchasing, 49 per cent so rate in selling life insurance, and 28 per cent in advertising. As there is little correlation between these three interests, relatively few men rate high in any two of them or in all three of them.

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[4] See Footnote 3 for partial explanation of these high percentages.

[5] All of the men comprising our criterion group of farmers are graduates of the University of California Agricultural College and have been engaged in actual farming for five years or more.

Relatively few men rate B and almost none rate A in teaching, psychology, Y. M. C. A. secretary, architect, public accounting, ministry and art. These low percentages agree with the small number of seniors who have expressed their intention to enter these occupations.

From the data in Table 2 one is apt to draw the conclusion that a very large proportion of the 287 seniors are interested in these fifteen occupations. One is likely to come to this conclusion even if the B ratings are excluded from consideration. As an actual fact, 52 per cent of the seniors do not rate A in any one of the fifteen occupations. On the other hand, 28 per cent rate A in one occupation, 12 per cent rate A in two occupations, 7 per cent in three, and 1 per cent in four. It is these duplications that give this erroneous conclusion. Before we may draw any conclusion as to whether there are any number of men who have no real interest in any occupation we must develop scales for measuring interest in many additional occupations.

Forty-nine of these seniors are not sure of their occupational choice as given in January, 1928. Seventy per cent of this group do not rate A in any one of the fifteen occupations. On the other hand, 4 per cent rate A in four different occupations and 2 per cent in five occupations. It is suggested that those students who are slow to make up their minds as to a vocation are, on the whole, students who do not have definite interests or have very strong interests in several different lines. At least this group of undecided men differ from those who have made a definite choice in these two directions.

Consider now the extent to which the ratings on the interest test agree with the occupational choices of these students.

In this comparison it is necessary to omit all those students who either have made no occupational choice at all or who have selected an occupation for which we have at present no scale for measuring interest in it. This gives us the records of 156 students, similar to the ten students given a ranking in the last column of Table 1.

These 156 records have been subdivided into two groups, composed, first, of students who definitely give their occupational choice; and second, of students who indicate that they are not sure that the choice they have given is correct. An example of the latter is: "I am in the public accounting field at present but am not sure if I shall stay with it. I desire to become a business executive preferably dealing with finance." This student's occupational choice is recorded as "accounting." Another student's choice of "investments." is expressed by him as, "I am still undecided regarding investments and law." Some students give three and even four such alternates. We tried expressing these choices by using fractions but finally resorted to the simpler device of recognizing only a definite or a qualified choice, and in the latter case recognizing only the occupation the student named first, unless his statement was very clear he preferred other occupation. There is apparently no way by which the varied ways of expressing choice of occupation may be reduced to definite terms for statistical use. Some students will give engineering with qualifications meaning that they are wavering between it and law, while others will make the same statement meaning they are wavering between design and research electrical engineering. Considerable error must creep into any one's calculations at this point.

From Table 3 we see that 71 of the 156 students, or 46 per cent, have entered the occupation on which they received the highest rating in the interest test; and 20 per cent have entered the occupation on which they received the second highest rating, or a total of 66 per cent that are for all practical purposes correctly placed by the test.

There is, however, not such close agreement in the case of the 41 students who are not certain of their occupational

TABLE 3.—*Number and Per Cent of Students Entering the Occupation in Which They Are Rated First, Second, Third, Fourth, or Fifth, According to the Interest Test.*

Entering the occupation in which they receive:	Entire 156 students		41 students not sure of their choice		115 students sure of their choice	
	No.	%	*No.*	%	*No.*	%
The highest rating	71	46	14	34	57	50
The second highest rating	31	20	7	17	24	21
The third highest rating	17	11	4	10	13	11
The fourth highest rating	7	4	2	5	5	4
The fifth highest rating	2	1	0	0	2	2
A C rating	28	18	14	34	14	12
Total	156		41		115	

choice. Here only 51 per cent have entered the occupation on which they received highest and second highest test rating. In addition we find that 34 per cent of this group have tentatively chosen an occupation in which they are rated C by the test.

If consideration is given to only the 115 students who definitely state their occupational choice, we find 50 per cent entering the occupation on which they are rated highest among fifteen occupations on the test and 21 per cent entering the occupation on which they are rated second highest, whereas only 12 per cent are apparently entering an occupation for which they have no interest according to the test. Such figures are truly significant.

Extent to Which Seniors Have Determined Their Occupational Choice.—Twenty-four per cent of the 287 students gave no occupational preference in March, 1927, only a short time before graduation, and 12 per cent stated an occupation but with such qualifications as to indicate they were not sure. This makes a total of 36 per cent who were not sure of what they were going to do after graduation.

Nine months later 9 per cent gave no occupational preference and 16 per cent were not sure of their expressed choice. During these nine months, there was an increase of 11 per cent of those who were certain they knew what their occupation was to be.

A more detailed analysis of these statistics is of interest. Of the 24 per cent who gave no choice in March, 1927, 8 per cent gave no choice in January, 1928, 10 per cent gave a definite choice, and 6 per cent gave a choice with qualifications.

Of the 12 per cent who gave a choice with qualifications, 10 per cent gave, nine months later, a definite choice and 2 per cent remained in doubt.

Of the 64 per cent who gave a definite choice, 56 per cent still gave a definite choice, but 8 per cent had become doubtful of their plans.

When the statements of these 56 per cent who were certain of their occupational choice on both dates are analyzed it is found that 44 per cent have made no change, 9 per cent have made a slight change within their occupational field, 2 per cent have made a somewhat greater change and 1 per cent have made radical changes, such as, foreign trade to medicine, mining engineering to marketing, mining engineering to journalism, and mechanical engineering to retail merchandising.

Possibly the above figures may be most clearly expressed in tabular form, as in Table 4.

TABLE 4.—*Extent to Which Seniors Change Their Occupational Choices During the Nine Months Just before and after Graduation.*

Have remained certain with no occupational change at all	44%	
Have remained certain with slight occupational change	11	
Have remained doubtful with no occupational change	2	
Have shifted from doubt to certainty with no occupational change	9	
Total maintaining the same occupational program		66%
Have changed from no choice to definite choice	10	
Are still doubtful of their choice, 6 per cent shifting from no choice to a doubtful choice and 9 per cent from certainty to doubt	15	
Total changing their program		25%
Have continued without an expressed occupational choice		9%

Two-thirds of Stanford seniors have definitely selected their vocation before graduation and still adhere to that program several months later. One-third either have no definite program or are doubtful of their program.

These 287 men will be asked to state their vocational program next January. It will be interesting to discover the extent to which their plans have changed in the year and a half after graduation; also to determine whether these changes have been in the direction of their interests before graduation as indicated by the interest test.

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Treasurer's Report

Report of the Annual Meeting

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Preliminary Announcement

FOR the past eleven years it has been the custom to use the time of the Annual Meeting of the American Council on Education to receive and discuss reports on the Council's own activities and on related activities of other organizations. This is leading to improved national standards and to constructive cooperative experiments in education. Meanwhile many other national organizations have been working similarly to secure national cooperation, each in its own field. Results of all these specialized cooperative enterprises are now appearing in the form of new and nationally significant tendencies in American life.

Many of the new national tendencies that appear to be wholly material are actually working profound changes in the outlook and disposition of the American people. Hence the Executive Committee of the American Council on Education voted to use the Annual Meeting this year to consider how we can make education meet these tendencies and foster healthy growth of the new vitality that is stirring.

The following are evidently some of the significant industrial tendencies that offer practical approaches for cooperation by education:

1. The tendency to create practical methods by which each individual may find the work he can do best.
2. The tendency to find by experiment the critical facts that control individual conduct and to use these to secure voluntary cooperation and stimulate individual responsibility.
3. The tendency to change abruptly the conditions of employment of skilled workers by introduction of automatic machinery and development of new industries.
4. The tendency to stress excellence of service as a determining force in profitable business.

The attitude of the new administration in Washington emphasizes the timeliness of such a program. President

Hoover, who has been a dominant factor in crystallizing significant tendencies in industrial life, has frequently stressed the outstanding responsibility of education for guiding further growth.

In his American Individualism, he says: "Our social and economic system cannot march toward better days unless it is inspired by things of the spirit. * * * Spirituality with its faith, its hope, its charity, can be increased by each individual's own effort. And in proportion as each individual increases his own store of spirituality, in that proportion increases the idealism of democracy. * * * With the growth of ideals through education, with the higher realization of freedom, of justice, of humanity, of service, the selfish impulses become less and less dominant. * * * But for the next several generations we dare not abandon self-interest as a motive force to leadership and to production, lest we die."

With a Secretary of the Interior and a Commissioner of Education who are technical experts in education, a rare opportunity is presented to make education more fully meet the new national tendencies.

Action

THE general theme of this meeting is: "How can we make education meet nationally significant tendencies in American life?" Please note the wording of the question. Not, what can we think? Not, what can we say? Not, what resolutions can we pass? It is, what can we do to make education meet a specific challenge? *Do* demands action. *Make* demands constructive action. *Meet* demands appropriate action. To answer is to act.

For the past ten years American life has been a torrent of seething action. We are all in it. No one can escape it. Therefore, in deciding what we can do to make education cope wisely with it, we must not be bewildered by surface whirlpools of minor groups circling around pet hobbies. We must chart the stream lines of the moving mass as revealed in the new tendencies of the times.

Only four of the many new tendencies in American life are mentioned in the preliminary announcement of this meeting. These were chosen because they are mass movements which are now so well defined that we are already doing practical things to make education meet them. The social, political and industrial significance of having every individual find the work he can do best is now taken for granted. Hence experiments with new-type tests, record forms, job analyses, rating scales and progress charts are everywhere the order of the day. Each year it is more difficult to find a school or an industry that is not trying something new in this field.

As is usual with infant sciences, much of the early experimentation in "personnel" was crude and gave negative results. For example, the early efforts to define the man needed for a particular job in terms of personal traits like loyalty, initiative, tact, perseverance, and the like, did not yield results that justified their cost. They did, however, serve to define the problem more sharply. They stimulated the search for the factors that are critical in finding the right work for every man.

This naive notion that personality can be accurately portrayed in terms of abstract traits seems to be firmly fixed in our mental make-up. It was something of a shock to me to have that notion shattered by the force of facts. We were holding a series of weekly conferences with representatives of all branches of the Army for the purpose of standardizing the titles of technical specialists in the military service. Tentative titles and specifications of the requirements of each such specialist, classified under the three headings—skill, knowledge, and personal—were criticized by the members of the group. In every case agreement was easily reached on the essential items of skill. Agreement on items of knowledge proved more difficult. But in no one of 257 varieties of work could the group agree on any one personal trait that is essential to successful performance.

Having been thus brusquely jarred loose from the congenital but thoughtless habit of trying to appraise either jobs or men in terms of abstract personal traits, it is easy to understand why this habit is the source of endless confusion. One boy has initiative and resourcefulness in radio but not in music. A man may have courage in business but not in battle. Traits are specific, not general. They mean little apart from specific situations. Their ambiguity is further increased by the variety of meanings which different people give to the same term. Hence, a great area of confusion in "personnel" is cleared for action when such abstract personal traits are outlawed as categories of analysis.

If you examine the "Minimum Specifications and Index for Occupational Specialists" published by the War Department in 1924, you find in the "Personal" section of each specification only the physical defect waivers that authorize enlistment of physical defectives as limited service men in each particular job. Some "personal" items were retained in the "Minimum Specifications for Highway Engineering Positions" compiled in cooperation with the United States Bureau of Public Roads and a dozen State Highway Commissions and published in the Bulletin of the National Research Council in May, 1924. Examination of these items shows how they confuse rather than clarify the picture of the requirements of the job. The categories are not homogeneous. You might as well try to measure temperature with a pound weight or a dollar bill.

The "Job Specifications" published by this Council in 1927 resulted from two years of cooperative experiment by the War Department and the Chesapeake and Potomac Telephone Company. These specifications contain neither "personal" nor "knowledge" items. The "personal" items were tabu from the start because of the War Department's previous experience with them. The "knowledge" items were gradually transformed into items of skill as job after job was analyzed and the essential activities were isolated and recorded. The conclusion was progressively forced upon us that it is much more dynamic and expressive to say "Add, subtract, multiply and divide integers and decimals with speed and accuracy," than it is to say "Know arithmetic." Similarly, "reason logically" indicates a much more specific, accurate and objective mode of measuring capacity than does "know logic." So the "knowledge" items were restated in terms of action and the job specifications were reduced to items that describe only observable and measurable skills.

This result shocked me even more than did the loss of personal traits. All our inherited conceptions of knowledge as a commodity that could be bought by the bookful at any news stand were shattered beyond repair. But, though puzzled, we were not discouraged, for that oppressive sense of groping and ambiguity was gone. The subtle metaphysical inconsistencies that persistently befogged the issue had disappeared.

I am glad to confess that those telephone specifications of 1927, in spite of their clarity and consistency, now seem to me austere. They lack the warmth of personal color. They smack of standardization and conformity. Like our machines, they pulsate with power but lack the divine spark that would make them live as men. The missing link was finally found in literature. For great literature depicts character in terms of action. It gives the living touch by the manner in which both action and the conditions of action are described. How many millions have been inspired with a determination to carry on by Kipling's specification of the skills that make for victory?

"If you can dream—and not make dreams your master;
If you can think—and not make thoughts your aim,
If you can meet with Triumph and Disaster
And treat those two impostors just the same;
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken,
And stoop and build 'em with worn-out tools."

Clearly a living job specification must be a literary product—it must reveal spiritual forces at work on material things.

A simple example may help to clarify this conclusion. The older form of job specification for a ranger in the National Park Service consists of such items as,

Patrols park trails.
Watches for and reports forest fires.
Gives aid and information to travelers.

Compare these with,

Carries aid without fail to wayfarers who have lost their way on rough mountain trails in a blizzard.

How many of the men you know can successfully go through the motions specified by the first items? How many can be relied on to make good on the requirements of the second? Write down the names of those whom you select as competent and be convinced of the relative merits of the two as guides for finding the right work for every individual.

Descriptions of work in this latest form are based on a thorough analysis of best current usage, both with regard to the mechanics of the work and with regard to the manner of satisfactory performance. Therefore such statements are called Records of Usage, to distinguish them from job specifications. Recently completed records of usage, written in this form and describing the work of the President of the United States and that of the Foreign Service Officer, are published in the current number of the EDUCATIONAL RECORD, April, 1929. These are samples of the present state of an art that is still in process of evolution.

If you study these new records, and surely if you practice writing them, you will discover that a well-written record of usage gives a fairly accurate picture of the man who can do the job. It portrays work in terms of human performance in such manner that the requirements of a job can be checked against the observed performance of an individual and a reliable estimate of mutual fitness made. The units on both sides of the equation are homogeneous. We are now, so to speak, measuring temperature with the thermometer, weight with the pound, and economic value with the dollar.

The evolution of the record of usage has been presented at such length because that experience suggests a novel line of attack on the question that is the general theme of this meeting. In our efforts to make education meet tendencies of modern life, clear thinking is essential. What will happen if we abandon personal traits and knowledge as independent categories of analysis and do our thinking wholly in terms of skill and action? By doing this, records of usage have been made effective instruments in helping men find the work they can do best. Is this procedure equally effective in other fields?

The Modern Foreign Language Study furnishes important evidence on this point. When this work began in 1924, thirteen "ultimate objectives" were presented to the committee as possible guides for its work. "Knowledge" and "personal traits" are there in their glory; for example,

> Increased knowledge of the history and institutions of the foreign country.
>
> Ability to understand ideals, standards, and traditions of foreign peoples and Americans of foreign birth.
>
> A keener realization of the value of continued and sustained effort.

As this study progressed the committee prepared objective tests to measure how well beginners read, write, and speak a foreign language at the end of each semester's work. They also made word counts, idiom counts and other records of usage as a basis for the tests and for revision of materials of instruction. They demonstrated that classes in some schools do not read and speak French as well after two years of study as classes in other schools do at the end of one semester. They proved that students read and speak better at the end of one year if the most frequently used words and idioms are presented first. Thus they analyzed usage in terms of skill only, created instruments for measuring skill, and found by experiment some of the critical facts that control conduct and stimulate teachers to take responsibility. Altogether some 18,000 language teachers cooperated in the enterprise.

This afternoon Professor Fife, chairman of the Committee on the Modern Foreign Language Study, will tell us more about this work. I will merely say that, in my personal opinion, the modern foreign languages now have a real chance of becoming both popular with the students and effective instruments of liberal education and international good will. The metaphysical fog of thirteen "ultimate objectives" with which the committee was blanketed four years ago has vanished. The final report mentions only four objectives of foreign language study—read, write, speak, and understand.

It took the Foreign Language Committee four years to dispel that fog. No one can be expected to do likewise in four minutes. Those who are bewildered by the inevitable mental muddle in which most current statements of "ultimate objectives" leave them may work their way toward clarity and consistency by translating such statements into the language of skill and action. Thus, instead of "increased knowledge of history and institutions" you might say "discuss intelligently history and institutions." For "ability to understand ideals, standards and traditions" substitute "appraise sympathetically ideals, etc." Similarly, "acquire habits of continued and sustained work" is more helpful than is "keener appreciation of the value of continued and sustained effort." The former leads to constructive action, the latter only to wistful wishing. The market value of wistful wishing is low.

The Modern Foreign Language Study was introduced here by way of evidence of the benefits that accrue from thinking in terms of skill and action. It has turned out to be also a fine example of what is being done to make education meet the second significant tendency mentioned on the preliminary announcement of this meeting. By experiment they found critical facts that control conduct. The foreign language teachers have accepted responsibility for improving their own work and are cooperating voluntarily to that end. Results are being objectively measured in terms of demonstrable skill. The psychology of the classroom is coming to resemble the psychology of the stadium.

Another example: 400,000,000 Chinese—one quarter of all the people on earth—illiterate for centuries, are now learning to read and write. How? Dr. D. Y. C. James Yen, a Chinese graduate of Yale, began an analysis of language usage in China. He found that some 14,000 different symbols were used in writing the Chinese vernacular. He showed how the number could be reduced to 1,200. He developed a series of exercises by which any moderately intelligent person can learn to read Chinese in 96 days, one hour a day. Newspapers and books were printed in the new symbols. In his first experiment ten years ago 1,400 illiterate Chinese volunteered to take the training; 950 passed the final test. Now 120,000 volunteer teachers are teaching 6,000,000 illiterates to read. He estimates that in about fifteen years the Chinese will be a literate people.

Much fundamental work has been done here by this technique in reading, spelling, arithmetic and other school subjects. Business and industry are learning to use it effectively under guidance of the United States Department of Commerce. Dean Russell will tell us presently how it is proving fruitful in character study. It is applicable to every phase of education when we think in categories of skill and action. If questionnaire writers would use it in preparing questionnaires, they would discard about 90 per cent of their questions and would secure more significant facts of the critical sort that control conduct and stimulate people to take responsibility and get things done.

What shall we do to make education meet those first two tendencies? Analyze usage in terms of action. Treat "personal traits" and "knowledge" as concomitants of action, revealed to others only through action. Then find by experiment the critical facts that control action and act accordingly.

The other two tendencies mentioned on the preliminary announcement may be met by the same procedure. Industrialists have already isolated many of the facts that are critical in controlling these tendencies as far as industrial organization and operation are concerned. Little has yet been done to discover the educational implications either of changing conditions of employment or of emphasis on excellence of service. Here are new fields of adventure for schoolmen.

In my own adventures in these new fields, I find the conception of continuity of individual growth a very present help in time of trouble. For even though schools are "highbrow" and impractical and business "lowbrow" and practical, people do grow up somehow. Many of them grow to be noble men and women. We are of tougher stuff than dreams are made of. Nevertheless, we may all agree that the chances of growing into gentlemen or noble women might be materially increased if the discontinuity in atmosphere and ideals between school and work were ironed out. There are many ways of doing this; but all depend on signaling out some dynamic motif that dominates both school and work, and then composing the symphony of learning and labor about that as the central theme.

If you will entertain an hypothesis as to the discord between school and work, I venture the guess that it is because the motif of the school is "knowledge" while the motif of work is "action." Can these two motifs be so harmonized as to iron out the discontinuity between school and work and open the way for the masses to fuller and richer life?

The foregoing story gives a live clue to one practical answer. The experiments with job specifications showed that "knowledge" and "personal" items confuse the issue.

Clarity and consistency are achieved when all items are expressed in terms of "skill." The Modern Foreign Language Study finds that better results are secured when attention in teaching is focussed on skill in reading, writing, speaking and understanding and when promotion depends on the degree of skill acquired. Sports that grip us are contests of skill. The inspired musician who thrills the throng is not one who merely "knows" how to play. He is one who plays with consummate skill.

I am well aware that this seeming deification of skill will shock many of you. It shocked me at first. But I assure you that as you get used to it you will find it a keen instrument for dispelling the metaphysical fog in which we are floundering. Be sure not to limit the idea, as is generally done, to mechanical skill, as embodied in the common phrase skilled labor. Ponder the definition propounded by L. P. Jacks in his recent inspiring book, "Constructive Citizenship:"

"Skill *is wisdom in action.*"

Ponder more the following comments of his:

> "The true vocation of man in the universe is to exercise skill in one or *other of its innumerable varieties—not merely to 'work' but to work* skilfully—that is, manfully. Without some skill to exercise and devote himself to, man remains a half-grown, stunted and essentially miserable object, irrespective of whether he lives in a palace or a slum, and no conceivable reconstruction of 'society' on economic or political lines can make him anything else. Furnish him with skill, train him for some skilled occupation, and you give him his best chance to become a *man*—that is, to get as near as the contradictions of the world permit to being master of his fate and captain of his soul. A 'good social *system' will do that for the citizen first of all.* Nothing else that it can do for him will amount to much if that is not done.
>
> "*Any educational system which fails to issue in the skill of the educated* is a system that ends half-finished. The knowledge it has imparted is half-knowledge, more likely to be dangerous to its possessor than otherwise, and that no matter whether the substance of it be the sciences or the humanities, literature, philosophy, theology, religion, or what you will. A head crammed with knowledge which it has never learned to translate into any kind of skill is a head, strictly speaking, that knows nothing thoroughly but only the beginnings of things that have never lived, or the ghosts of things that were once alive."

An optimist sees a challenge in every difficulty. If you are optimists, you will accept this challenge set by the difficulties of substituting "skill" for "knowledge" as the motif of schooling. I firmly believe that there are now enough optimists among us to meet this challenge victoriously. This enterprise, in combination with the efforts now being made to help every individual discover what he can do best, is the schoolman's best bet for helping eliminate unemployment.

Misfits and lack of skill seem to be the basic reasons why so many people achieve less than their best, not only in simple jobs, but in high executive positions. It is today quite as difficult to find competent men for foremen, general managers and presidents as it is to find steady jobs for unskilled laborers. Witness, in higher education, the number of college and university presidencies now vacant. There are many men with noble personal traits. There are many men with much book knowledge. But there are few men who in addition have the skill to do the job well.

We educators cannot decide whether industrialists will substitute "skill" for "action" as the motif of work. Many of them already do this superficially. But if the discontinuity between school and work is to be ironed out, so that continuity of individual growth is real, industrialists must cease to treat skill as a commodity—as one of the raw materials which, like pig iron, is necessary to production and to profit. The product of the potter's wheel is not the pot, but the potter. Here and there the world's work is being done on this principle. But the motif of work will not really be skill as just defined until, in the words of Jacks, industry "furnishes every grade of worker, down to those at the minimum level, with sufficient scope for his personal skill to make his day's work a valuable education."

Would there were time to present the rapidly accumulating evidence that the working world is now steadily moving toward realization of this condition, particularly in America. It has already been realized in large measure in professional and higher executive work. Now that the mechanics of material prosperity is fairly well in hand, attention is being directed increasingly to the human factors—health, safety, schooling, and others on which morale and growth of workers so vitally depend. The most promising line of progress seems to me to lie in the direction of cooperation between school and industry in developing the greatest of all our natural resources, the latent skills of the people. Practical methods of detecting, appraising, analyzing, and liberating these skills are evolving. President Marvin and Dr. Robertson will tell us more about them tomorrow morning.

To me the most heartening sign of the times is the fourth tendency mentioned on the program. No educator can speak with authority on this subject. He has not lived it, as has Mr. Julius H. Barnes, who will presently tell us about it. This tendency to emphasize excellence of service—fine workmanship—in business indicates that we are beginning to sense the divine significance of work as the source of all real values in life. Those who accept wages as the adequate reward of skill are lost souls, dead or dying. But those who find also joy in the exercise of skill, whose skill is inspired with ideals of fine workmanship—those are the living, growing souls for whom all life is education.

C. R. MANN.

Washington, D. C.

America's Educational Program

THIS meeting has been so fruitful that I shall try to express some of the thoughts which have been clarifying themselves in my mind since last night.

My first reflections were general and philosophical. I made the broad but safe generalization that man, fortunately, has not yet attained perfection, nor are there any trustworthy indications that even the dimly discernible future holds such a state in store. I say "furtunately" because it is the continuous perception of needs for improvement in numerous details of life and the consequent setting of new objectives which make our sojourn on this planet stimulating and which chasten and prepare us, no doubt, for a perfectibility not of the earth. Not only are our dreams, aspirations and fragments of knowledge far short of perfection themselves, but we never really live up to them such as they are.

At no time has society been organized and operated with beauty of plan and smoothness of execution quite equal even to the best current information and ideals. Our aspirations and theoretical patterns are always just a little ahead of our organization and practice.

We are restricted in our human limitations of conception and thought, but we are more limited in execution because the very processes of dynamic life make it impossible for practice to keep abreast of knowledge. Individually, not one of us is so good in his acts as his moral character or his own best self would desire. We have old habits which cannot be swiftly reformed. We have retarding customs into which we have fallen. Practical situations arise which bewilder and even blind the eye that earnestly seeks its guiding pillar of fire. Society also is subject to the law of inertia in practice which prevents immediate adjustment to an accepted ideal. Very able minds have conceived improvements in our social and industrial system, but we must expect to achieve the ensuing benefits, of necessity, slowly and sometimes indirectly.

Mr. Barnes spoke today about the changes of industry. We all know about the great corporations whose inventors give them new principles which cannot be used immediately, because the very act of discarding materials, patterns and processes is so expensive and far reaching in its implications that the new improvements must wait. The loss on investment already made might otherwise be even greater than the value of the benefit anticipated. So general is inertia in progress that we can lay it down as a principle that the best of thought is never even approximately reached in practice. Consequently it is easy for any fairly well informed person, somewhat above the general level of intelligence, to become effective as a critic, a nag, a muckraker, an irritating source of discontent. It is easy to play the part of the philosopher and seer and to pose as one of sensibilities more subtle than other men—judged by the things they do in active life. It is not hard for such a social gadfly to denounce what is and to clamor for what ought to be. He may even refrain from the baser practice of baying the moon and demanding impossible results, because he has range enough when he merely insists that, in this field and in that, practice falls short of the latest and best knowledge.

Destructive criticism is not difficult to deliver, and to purvey it is regarded by many as an attractive occupation, not only flattering to the vanity of the purveyor but often highly remunerative. More arduous, however, is the task of the equally sensitive and intelligent builder who seeks to keep humanity moving forward by inserting a new wheel or bearing or pinion in the social machine without jarring the works unnecessarily. Such a one would agree that if a completely new set of works, in harmonious adjustment, including every recently proved principle, could be had by a wave of the hand in place of the old, he would be glad to make the radical change. But he knows that he must operate through the lives of men; that ideas are not quickly absorbed and habits cannot be changed instantly; that materials in stock must be used and only gradually replaced by newer products if too much energy is not to be withdrawn from current production of consumable goods and devoted to capital construction. Or, to change from a mechanical to a physiological figure of speech, he knows that the social body must be kept nourished and alive while growth and change take place in the cell structure.

We representatives of the colleges, universities and educational associations of the United States are builders of an American system of education. We are, I hope, intelligent observers of the life about us and we are aware of the points of strength and of weaknesses of our education. On all sides we hear criticisms of our schools, elementary and high, and especially our colleges. There is no aspect of the whole educational fabric, including its aims, its methods, its teachers and its students, that has not been severely criticised by the competent and incompetent, the selfish and the unselfish, the disgruntled members of the teaching profession, and the publicity seeking meddler in all matters social.

The criticisms are often just, if by that we mean that they point out places where our practice does not come up to the best in approved theory, but if the criticisms be looked at in bulk and considered as condemnations of the broad achievements of education in this swiftly growing nation, then they must be cast aside as petty and captious. I want to say right now there is no country on the face of the earth and there is no country that ever existed in an earlier age that can approach the United States in its marvelous record of achievement in the educational field, granting all the flaws which we could point out, and granting all the places where, without stopping the organization, we would wish to make improvements.

On the whole, America has done more, through education, to develop an enlightened, free and effective people than any other nation within the same span of time, and it is, therefore, in the position of most favorable promise for future improvement.

Our educational development, its shortcomings and its possibilities of greater improvement can be understood if considered parallel with the economic evolution of the nation.

Her settlers found a vast area to be secured and subjugated. From colonial times up to and well after the Civil War, the continent was developed extensively. Vast crops were wrung from the soil and new areas were put into cultivation. Wood was needed for fuel and construction and whole forests were chopped down. Coal was mined swiftly and, according to later standards, wastefully. Railroads were built and concessions had to be made to the builders. Industries were started and protected by the tariff. The Civil War was fought, and out of its hurried finances was born a National Banking System resting on the inflexible base of government bonds. Great industries were built up, and with the increased productiveness came the problems of concentrated power. Vast numbers of people from other lands were taken into the population, and immigration brought with its blessings its share of disadvantages. Between the time of the Spanish-American and the Great War we had almost completed what I would call our extensive development. A continent had been subdued. Our people were spread over the face of the earth, and a job of extensive development had been almost completed. The young nation, in an incredibly short time, has brought about a well-being and a level of living that had never been known before, without detriment to the principle of equality of opportunity to all. There was a constant moving, shifting and changing of the economic functions of individuals according to their merit, roughly estimated, to be sure, but certainly with no caste system or artificial barriers to interfere with the competitive process through which each man had a chance to show his genius or ability and find his place in the working world. Nor was there established any all-powerful bureaucratic dictatorship.

This was a great industrial or economic achievement. In the process of its accomplishment did some things happen that would not have happened had we had, at the beginning, the wisdom of the final day? Of course they did. We are still "mopping up" and straightening out certain details of national finance, interstate commerce, regulation of competition, adjustment of tariff rates, establishment of immigration quotas and determination of proper conservation measures. Our new problems are those of organization and effective operation in the direction of an intensive margin or limit.

Wherever there is a swift job to be done of the extensive sort, with the achievement of broad results many imperfections in detail arise which have to be ironed out afterwards. But when the extensive margin is in sight there comes a second period of intensive, scientific management, characterized by the careful application of the highest skill and the greatest of economy in tightening up and sharpening all processes. Then follows an intensive use of that which has first been conquered in an extensive way, and this evolution continues until a point is reached where increased application of skill and money and machinery begin to yield less than proportionate returns. At that point an industrial plant must once more expand extensively and a nation seeks colonies or foreign markets and fields of influence.

American education has had exactly the same history as our industry. We have almost reached the margin in Continental United States of our extensive development. What do we find? There are about 24,000,000 students in the elementary schools, over 4,000,000 students in the secondary schools, and 1,000,000 in colleges, universities and teacher training schools, or institutions above the secondary level. No nation in the world ever had anything like that spread of the benefits of education.

I would say that, so far as the elementary schools are concerned, we have almost reached the extensive limit or point of quantitative saturation; that is, the number of children who are receiving full primary and grammar school education has almost reached that point in relation to the total population, which would mean that we are fully caring for all capable of receiving this grade of instruction. The ratio between total population and elementary school attendance is very satisfactory. The high school is almost as good. I would say probably one to five would be the proper ratio; that is, for every five in the lower school, there should be one in the high school. The colleges and universities are growing rapidly but have not quite reached the enrollment that would mark the extensive limit. We have very little further to go in this extensive program, and now we must consider most scientifically just how we will make the most of our educational system.

Today Mr. Barnes observed that so prosperous is the United States and so great is the amount of gold pouring from the wheels of industry that a large share goes to education, and that educational progress is the direct result of industrial prosperity. As he said that, my mind went back to certain investigations which Dr. Godfrey made and in which some of us assisted. Those studies show in a most interesting way that Mr. Barnes put the cart before the horse.

A careful record was made of the increase in national wealth. Beginning in 1790 at about three-quarters of a billion dollars, it rose in a steady incline to over four billion in 1850. Then the ascent became sharper, and in 1900 the national wealth was over eighty-eight billion. At that point it ascended almost vertically to the astounding figure of $355,000,000,000 in 1925. This gives the greatest per capita wealth ever known in history.

How do we account for it? Godfrey's studies showed that it was not a phenomenon traceable to mere increase in population. But he did find that increases in wealth had been preceded by corresponding increases in high school and college enrollment and in publications by educated men. We conclude that, as the schools produced more graduates of secondary and collegiate grade, more intelligence began to play upon the economic problems of the country, ideas were circulated by the printing press, and there was a consequent increase in industrial effectiveness. I am convinced that this is the actual sequence. Of course there is a reciprocal action in a democracy like ours between wealth and education, but ideas always precede material progress.

However, the results of education cannot be measured in gold; they must abide in the hearts and minds of men and be revealed in their words and deeds in all the relations of life. To be sure, an intelligent people will know how to be effective in producing whatever they set out to produce, but it is important that they should wish to make things available for noble uses. We are interested not only in the report Mr. Barnes brings of the production and distribution of goods; we are even more concerned with the ideals and the spirit which determine what shall be made and how it shall be used. Granting that our people are far short of perfection, I am convinced that our system of democratic education has had the effect of making them effective without arrogance, acute in business, and at the same time generous, able in international competition, but truly desirous of living in peace and harmony with other peoples. There were many causes which contributed to the general success of the United States of America, but the most effective of all these was American education.

Nevertheless, the rapid development of our educational work brought about a situation in which the intensive, scientific educator finds scope for reforms or improvements. What are some of the educational problems to which we must address ourselves?

Our greatest need is for more well-trained teachers, especially in the high schools. During the first years of mounting registration in the elementary schools, teachers of all sorts were pressed into service. At first their methods were crude, and they were poorly trained. Gradually training schools were established, and teachers with some appreciation of the technique of their profession were provided. These teachers, mostly young women where high school education was supplemented by two or three years in normal school, replaced the older staff. I would not criticise the well-meaning, patient teacher of the past nor overlook her devotion to duty and her unconscious heroism; when the nation called her and the schoolmaster to service it was like the cry of a country suddenly called to war, utilizing not skilled, professional soldiers, but all who were willing to serve, and their response was as noble as that of the military volunteer.

At present our greatest need is to raise the general scholastic qualifications for teachers to serve in elementary and high schools and to strengthen prescribed, professional courses of training in colleges and university schools of education. This raising of the cultural and technical attainments of the teaching body is essential to good work in the schools and to the comprehension by the members of the teaching body itself of new plans related to curriculum revision and methods of administration.

We must also solve problems of organization that will have some practical, administrative aspects and others related to psychology and educational theory. Shall the old division of eight years in elementary school, four years in high school and four in college be retained? Or will there be junior and senior high schools with the year divisions of six, three and three? Will the college in turn be subdivided into a junior college to round out the discipline of the senior high school, thus leaving the junior and senior years for higher general education or absorption into the professional schools of the university? Educational research and practical matters of geography and finance will influence developmental trends of the sort hinted. One thing is certain—that which is will not be retained merely because of tradition.

It is also important that a coherent plan be worked out for a curriculum ranging from the lowest grades right through the professional schools of the university. I do not suggest a rigid course to be prescribed for all, but rather that a flexible program be devised which would be adaptable to local and individual needs and which would keep ever in sight the obligation of making ours a nation of cultivated people.

Let us consider the idea of cultivation. What do we mean by "educating our people"? What do we mean by "cultivating a nation"? We mean working upon it and with it so as to put it into condition to bear its best fruit. We wish our individuals and the nation to live freely, to think, speak and act intelligently and benevolently, and consequently to be productive of good. Every farmer knows how to cultivate land—how to work upon it so as to shape it for effective service. So far as the development or cultivation of men and nations is concerned, we may say that the very process of living is cultivating. We need not elaborate the obvious by trying to prove that living and learning go hand in hand. Life is education; life shapes; life cultivates. Intelligence first dawned in a human brain possibly half a million years ago and life began to shape the receptive mind and body. The progress of the race began in antiquity and continued because of the buffets of life and the reactions of the human mind and spirit. Gradually there were built up skills and knowledges as old ways and superstitions were discarded. The race heritage of useful lore is the epitome of human experience. Each generation, viewed as a whole, is more cultivated than its predecessor, just as a well-kept, worked and fertilized field is more cultivated than it was before it knew the plow, the harrow and the hand of the husbandman.

Culture is an asset of the nation; it is not a mere ornament or decoration for the pedant. In relation to the individual it is not something to create envy in others—a veneer or finish like that which used to be regarded as the object sought after in fashionable ladies' schools. Culture is not a bauble to be tossed about in polite conversation to pass away time. A person's culture is the productive richness of capacity that glows in his soul, works in his mind, and displays itself in speech and deeds. It is himself bearing fruit—himself in action.

Nationally we can conceive our social organization as a fertile stretch of land and all the people as trees or shrubs, each with its distinctive capacities for maximum growth and service. We, as educators, are trying to keep the soil in good condition and to give each living plant most favorable conditions so that it will receive the sunlight of instruction, draw nourishment from current life, and bear its best fruit.

Passing from figurative to more technical language, let us say specifically how the curriculum shall be constructed that will make our people broad and wise and also sharp and effective in service. Such a curriculum must include a condensation of race experience. How is this epitome or inventory to be kept vital? Each age retains valid acquisitions of the past, discards items which have been superseded and adds new contributions of its own. And with each addition there is a rearrangement of elements in relative importance. For instance, advances in art will never result in any loss of the beauty and serenity of Greek sculpture of the Golden Age; nor will Donatello, Michaelangelo, Botticelli and Rembrandt be eliminated as artists of all time; but many other artists highly prized in their day will be forgotten because of the transitory character of their work, and new names will be put upon the eternal roll of honor. So also in music, Beethoven, Brahms and Bach will live, but the trend in musical theory, orchestration and composition will change with advancing civilization, and many composers who vitally affected the music of their day will drop below the horizons of the general student and the active musician and be preserved in records of interest only to the specialist in the history and development of music. In like manner, Hebrew and Sanskrit are no longer parts of a general curriculum but are relegated to the alcoves of advanced linguists.

It is impossible to go through the catalog of human knowledge, but we can in general say that it is the task of the educator to garner from the past all which contributes to understanding and efficient living in the present; and the transmission of the social heritage through a general curriculum is not the imparting of all the thoughts or practices of mankind nor the inculcating of mental tricks of value to the person of ornamental polish, but rather the implanting of valid elements of human experience which can be epitomized and made to impinge upon the real life of today, to the end that life may be made fuller, more beautiful and better.

The second division of a general curriculum has for its object the imparting of intellectual tools. No doubt many of us have heard the expression "tools of scholarship" very much criticised by those who say, "Why should every man have a grasp of higher mathematics?" No sane man would ever say that he should. But there are tools of varying sharpness and intricacy suitable for different intellectual levels. A child must master English if he is to have the tool of communication. If he advances to the stage where he wishes to deal with foreign manners, methods and practices, he must learn French or German or whatever language is indicated. Furthermore, the learning must be complete and practical, resulting in actual ability to read, write and speak —that is, to use the tool. Merely to develop admiration or respect for foreign languages and literature, in schools and college, is no better than for a would-be carpenter to love the brightness and sharpness of tools he has not skill to use in real work. Professor Fife and his committee reflect my view when they report that the object of modern language study in high school and college is first to impart a practical mastery of the tongue as a tool for later scholarly pursuits which will include literary appreciation and the gleaning of information. The same is true of mathematics. At each intelligence level there are scientific matters, the grasp of which requires the use of mathematics of appropriate range.

Consequently we can think of general education as the trunk of a tree. This trunk has broad knowledge and tools of the intellect woven into its fibers. As it rises to higher and higher levels it sends off branches of specialization, of application and of technology. The educator plans special studies for each such branch. It is interesting to note the reciprocal influence of practical life and the life of scholarly reflection. As the student ascends the broad trunk of scholarship he becomes aware of specific applications. So also one who has found his branch of specialization has revealed to him, in its practical details, relationships with general knowledge of which he was formerly unaware. Out of his daily task the thoughtful worker gets some insight into principles and great movements which lie back of his pursuits. The bookkeeper, catching a glimpse of business organization, is a potential economist; the young surveyor out on the mountains, noting the position of streams and lakes, rocks and earth, ponders the possible origin and evolution of the earth and has visions of its place in the cosmos. He begins to grasp the magnitude and majesty of the universe of which we are a part and to have intimations of a divine plan far beyond the possibilities of full comprehension by our human minds.

In American education our object is so to plan our curriculum through schools of various grades that one may ascend the general trunk as far as his intellectual capacity permits, and specialize effectively in some branch or branches in which he has peculiar capacity for success. Progress and opportunity should be limited only by the intellectual and moral qualities of each individual. If we make such a plan workable, we shall have in education a self-determination, open opportunity and competition analogous to that which has been so helpful to our nation in industry.

Now I revert to a matter hinted at in the last few minutes. The basis for advancement in schools must be real achievement. It is not sufficient to expose students to instruction and to go through the form of academic examinations for which one may cram, in order to determine his eligibility for further work. We must perfect our methods of measuring achievement and advance and certify students because of demonstrated attainments. Of course, common sense dictates this program. Its operation will not only protect the integrity of the schools but will tend to make teaching more vital and effective and to impress the student with the fact that pretense is worthless, while solid attainment is the only basis for further progress.

In recent years the ideal of thoroughness was somewhat dethroned by the sirens of soft pedagogy and diversified curriculum. America has not so much need for the so-called enriched curriculum as it has for a compact course of study in fundamentals rigorously administered. It is not so necessary to interest the student to explore many fields of endeavor as to make him capable of effective work in such field as he later decides to explore. The aim of teaching should be to develop the capacity of the student to observe and interpret life rather than to force on him an interpretation which is not his own and which he is not prepared to grasp.

I have outlined some of the steps in the intensive cultivation to which we must devote ourselves, not because we consider America to be backward in education or likely to suffer much in comparison with other countries, but because our first great era of mass education is nearing completion and the second is at hand. Certainly we are not to copy the educational system of any other nation. It is more likely that they will borrow from us. We have a social and intellectual life peculiarly democratic, peculiarly American. Our civilization, with its sturdy past, its powerful present and its brilliant future prospect, has its own basic motifs. We shall seek to bring forth the good that is in us.

There was a time when Europeans would say with a shrug, "Oh, how American; how different!" and some of us were ashamed. Now we are unruffled and reply, "Yes, indeed; our ways are different." We are making effective throughout the world the ideals of the founders of America. We are about to enter into national maturity and to make our contributions as the outstanding power to the cultural development of the world.

Already American methods in engineering, industrial organization and finance are recognized as foremost. Have we not also a new American architecture? From this will develop American art. Have we a new conception of city planning and development? It will influence the urban life of the world. I see the American free spirit which has displayed itself in political and practical matters showing forth in music and art, in literature and philanthropy and in a thousand unexpected details of daily life. The peculiarity of America is that in it there have been and there will be no fixed classes, but each man may rise to those industrial, social and intellectual levels which his own genius permits. And that rise and that development will depend upon the things, I believe, which I have outlined tonight; a sympathetic grasp of the present in the light of a valid epitome of the past; an honest mastery of tools; and then work in which one may give his very best self, knowing that all through life there is growth of the body and the mind and the spirit, and that there will be future fields of glorious achievement which no man can prophesy or foresee. Cultivation, which gives promise of such fruit, will be America's contribution to the ages.

FREDERICK B. ROBINSON.
The College of the City of New York.

Local Self-Government in Education

IN TAKING over the position of Secretary of the Interior, I found out soon that the education of the Indians was rather a prominent part of the work of the Indian Bureau in that Department. For the first time I thought of their problem as I had thought of so many other educational projects that I had come in contact with in the past.

You know, we are herd animals. Sometimes I wonder whether we do very much better than do the other herd animals in meeting life's responsibilities. They seem to multiply all right. They have worked up various methods of protection against the wolves and the coyotes, and so on. They move around in order to get a sufficient amount of food. They seem to solve the problems of life pretty well and they teach their young the essential things that have to be done. They are not quite as forehanded, perhaps, as is the bluejay. He inadvertently plants acorns in place in the ground and forgets them. I doubt whether he has the idea of eating acorns off the future tree, but at any rate he gets the results. But when I took hold of this Indian problem I came to the conclusion we were still herd animals.

We simply applied a lot of old stuff that we call an "education" to the Indian, and we applied all of our normal preconceptions as to what young people ought to do, of which all of us have a good heavy charge all of the time, and some, apparently those without children, have more than the others.

The absurdities of our school system become very prominent when you see their effects upon the Indian boy and girl in so far as making him or her a self-respecting, self-sustaining citizen is concerned. What do you think the son of Sitting Bull cares about the number of wives Henry VIII had? And yet every normal American boy and girl is expected to carry that around in some chamber of his brain for use on some occasion that will never occur.

We simply have a lot of traditional material and traditional methods in our educational scheme, and the absurdity of much of it does not occur to us when we are educating our own kind. They get a lot of other forms of training as they go along, through the home, the library, companions, etc.

What are we going to do in the Indian Bureau in the next quarter of a century to really educate that group of boys and girls, some born and some yet unborn, who ought to be carrying their own load twenty-five years from now? What is the process going to be? Are we going to take something that is in our so-called school system and plant it down on them, expecting them to come along with it and profit by it, or are we going to use all that we know in trying to find out what there is in the way of capacity in the Indian boy's, or girl's, mind and body and try to train those capacities?

I think it is a first-class educational job to sit up with. We have it in front of us. We are going to fail or succeed and the measure of that success or failure is going to be more and more evident. I look on it as a prime responsibility of our educational world here in the United States to see what can be done with it and remember that it is no different from the rest. The same thing is going on in all of our schoolrooms. The efforts to bring about change in method are, of course, always frustrated to some degree by the statement, "We have never done that before," or somebody throws the little red schoolhouse at us. It has been batted about a good deal. There is always something that seems to come up on us from the rear, and yet all that we do is preparation for the future. Why pack in so much old stuff to protect what you are doing in the educational process?

I started out by saying we were herd animals. The way we are distinguished from the animals is that we have some qualities that are of an entirely different classification. We have a lot of names for them—religion, idealism, patriotism, loyalty. Some of these at least seem to be somewhat distinguishing to humankind. In these domains we have our aspirations and make our advances. It seems to me that this side of education is not dealt with as completely as it might be.

In these few words, I wanted to sketch to you a responsibility that the United States Government faces in taking care of so many hundred thousand Indian people and their children, and the need of doing it in a way that will be a credit to us all. At the same time we have a chance to show just where we are in our educational process and how much real intelligence we have.

Human habits interfere with much of our progress. It is so easy to do the old thing over and over again. I made a suggestion awhile ago in a talk to the Stanford faculty that, as far as I know, was not generally accepted. I suggested that the professors who are giving lectures start in and give the last lecture first, and see whether that would make any difference in the class. And I meant it rather seriously. We have an idea there is a sequence about all this sort of thing. Is there a sequence about it? Do you learn things that way?

In other words, you can see that I am almost a question mark in my make-up, although I look like an interrogation point.

I know that you are considering things of great consequence and importance here in education, and I want to turn for just a moment to one other phase of education which interests me. We will call it local self-government in education.

I have often wished that I might have had the pleasure of sitting in at the discussions when the basic principles underlying the organization of the United States of America were being thought out loud by men like Thomas Jefferson and Benjamin Franklin. It seems to me that the wisest and shrewdest thing that was done was to encourage universal public education as the basis upon which citizenship should rest. The schoolhouse and the church have been the earliest community enterprises throughout the history of our gradual conquest of a great continent. They came just as soon as sustenance and defense had been mastered. In themselves, they were most significant because they brought local self-government and self-control into play.

There has been a unique distribution of the taxing power so that the majority of the expenditures for taxation have been raised and spent in the local districts and only a modest percentage outside of those for war and its after effects has come from the central government in Washington. This, together with the organization of the state governments, has permitted of a wide range of development in the public schools. Fortunately, too, there were no national universities, and the state universities followed a prolonged period of privately operated and later privately endowed institutions of higher learning. When the state universities appeared they were under the constant stimulation of private and independent institutions of equal rank. This kept the hand of centralized government largely off the school teacher and the schoolroom. Of course, there have been marked inadequacies in districts without a proper sense of self-government, without natural organizing power, and without financial strength. Some of those who have looked over our educational system have noticed only these dark spots and have thought that a national mechanism should be devised that would be nationwide in scope and would bring these weaker or dark spots at least up to the average level of the country. Correction of abuses is a poor method of developing proper administration. It seems to me that there is a distinct menace in the centralization in the national government of any large educational scheme with extensive financial resources available. Abnormal power to mould and standardize and crystallize education which would go with the dollars, would be more damaging to local government, local aspiration and self-respect, and to state government and state self-respect, than any assistance that might come from the funds.

We cannot rise higher than our source. That source in government with us is local. The family and the local community must be the places where citizenship is built and where the fiber of the nation is strengthened and its forces recruited. Too much help from afar is harmful to the initiative and self-reliance requisite for character in a community.

The place of the national government is not that of supplying funds in large amounts for carrying on the administrative functions of education in the communities, but to develop methods, ideals and procedures, and to present them, to be taken on their merits. The national government, too, can give widespread information on procedures, can report on what is actually going on in different parts of the country and in the world, and can unify to some extent the objects of those in the field of education in so far as unification is desirable. There is a distinct place for this sort of thing in the administrative side of the national government, but it should not be recognized as an administrative position with large funds at its disposal. A Department of Education similar to the other departments of the Government is not required. An adequate position for education within a department, and with sufficient financial support for its research, survey and other work, is all that is needed.

Great gains are possible in our whole educational scheme through national leadership provided in this way. Education is preparation for the future, and there must be constant change to keep in step with the advances made. Our conceptions regarding the mental make-up of children are shifting and the requirements of life are changing with a civilization which is being revamped by the practical applications of science and invention. The object of those of us who seek the greatest possible advantages for all from education can, it seems to me, be accomplished without disturbing the initiative and responsibility of local and State units of government.

RAY LYMAN WILBUR.

Department of the Interior,
Washington, D. C.

Some Responsibilities of the United States Bureau of Education

MANY reasons have been given why the United States Bureau of Education came into existence. I suspect that in the back of the minds of a good many men who voted for the Garfield bill creating the Bureau of Education was the hope that such an institution would be of service to the states, particularly in the south, which had no public school systems, in studying the experiences of other states, and in making such information available to the southern states.

The Transfer of General Eaton from the Freedmen's Bureau to the Bureau of Education as the second commissioner only three years after the establishment of the bureau is in itself an indication that many persons expected the bureau to be especially helpful to the south in solving its difficult school situation. But the argument of Mr. Garfield, who sponsored the bill creating the "Department of Education," was to the effect that a congressman was unable to obtain information about the educational activities of this country although he could find statistical information about almost anything else. He felt that there ought to be somewhere in the United States Government a bureau to collect data about schools and colleges. Naturally he wrote into his bill provisions that these responsibilities be assumed by the new "department." Fact finding, therefore, has been the chief function of the Bureau of Education ever since its inception in 1867.

In 1884, before the expiration of Commissioner Eaton's long term, the Bureau of Education was given another responsibility, that of educating the natives of Alaska. I do not know why this task was turned over to the Bureau of Education. The education of the natives of Continental United States as well as their other interests had been earlier entrusted to the Bureau of Indian Affairs. For some reason not clear to me, not only the education of the natives of Alaska but their other interests also were assigned to the Bureau of Education.

In studying the vocational outlets for those people we have developed a reindeer industry. This gives the bureau the very unique function of caring for the reindeer of Alaska. As a matter of fact, the only administrative functions exercised by the Bureau of Education are to check up for Congress on the use of the Federal funds in the land-grant colleges to see that they spend the money for hiring professors of agriculture, mechanics, and engineering, and do not spend too much of it on philosophy, education, and other useful subjects of that sort.

We do that, and in addition we administer the reindeer business. This service involves us in a good deal of trouble. We find ourselves asked to supply reindeer to department stores and theaters in Continental United States around Christmas time. We must answer a lot of letters about reindeer or refer these inquiries to commercial companies. The bureau maintains a ship, *The Boxer*, to assist in handling the business of those natives. The problems which have developed from the reindeer industry of the natives give us much concern. Since I discovered that the Alaskans are having a lot of trouble with an insect called the warble fly, and was informed by good friends that Washington's summer climate isn't all it might be, I have felt that I am duty bound to get a fly swatter and go after those warble flies in the summertime.

There are many challenging problems in connection with the work of our Alaska division, the most important of which is educating an indigenous people. I have looked in vain (I may have overlooked something) for comprehensive studies in the education of indigenous peoples. The Bureau of Education has splendid opportunity to make a contribution in this field which should be of service to those who are working with natives in Africa, in the islands of the Pacific, and in parts of Asia.

Somehow or other we have neglected, as the Secretary indicated in his address this afternoon, in dealing with the natives in this country, to make scientific studies of the capacity of these people, to investigate what they may be trained to do, or to ascertain their fitness to work into the civilization of white men. We have no reason to believe that all Indian tribes are equal in capacity, that all of them can be trained in the same way, or for the same vocations, or that employment conditions in different parts of the country will permit placement of natives trained in certain trades. There are many factors which must be taken into consideration.

A second field for study is concerned with supplying properly trained teachers for the Alaska service. In the past it has been customary to export from the States teachers into Alaska. Although we seem to have obtained some very good people, the states of this Union do not usually export the people of most service to the folks at home.

Moreover, in transferring teachers from a warm climate into a climate of the type of Alaska, one risks a high rate of sickness, and especially the contraction of tuberculosis. I am wondering whether it is not possible for us to find among the natives of Alaska some fairly bright people who may be trained to teach their own people.

I myself have been impressed with the success of the missionary efforts of the churches, which have trained leaders from the people among whom they work. They regard sending missionaries from the outside as a temporary stage in their work. As soon as possible they recruit their clergymen from among the natives themselves.

So much for the work of the Bureau of Education in Alaska —a work which involves roughly two-thirds of our appropriations.

Now with regard to the bureau itself: I spoke briefly of its organization. Each new commissioner has added some division. There does not seem to be any single organizing principle governing the creation of divisions within the bureau. It is possible to organize the specialists on the principle of educational functions or curricular activities.

For example, there could be a group of specialists in citizenship, in health education, in home-making education, etc. As a matter of fact, one group organized on that principle exists. There is a Division of Health and Physical Education. There was at one time a division of civic education, but it no longer exists. Likewise there could be an organization on the basis of school administrative units. In this case there would be a division devoted to higher education, one devoted to secondary education, one devoted to elementary education, and perhaps one to kindergarten-nursery education. In the bureau today there is one such division—higher education—and with it organization on that principle stops. The specialists who deal with secondary, elementary, and kindergarten education are to be found in a "city schools division," a "rural schools division," and a "service division." The kindergarten specialists are in the city schools division. The two high school specialists are found, one in the rural schools division, and the other in city schools division.

In the history of the bureau, then, there seems to have been no definite principle of administrative organization prevailing.

Just what reorganization should be made will depend, of course, upon the conditions to be met and work to be done. Whether the education of the natives is going to continue a phase of the work of the Indian Service or be a responsibility of the Bureau of Education, or whether it will be a joint responsibility, I think, has not been decided by the Secretary.

The work of the bureau that may legitimately be expanded seems to me to lie in the fields of survey and investigation. A survey of the negro colleges has been completed. A survey of the land-grant colleges is in progress. We have been directed by Congress to study the secondary schools of this country, and $225,000 has been provided for this purpose.

Since a great many people are interested in this study of secondary education, I shall speak of it briefly. We know at the outset that the secondary-school situation in America is chaotic. I suspect that in our course of study both in high school and in junior high school there is much that in any other part of the world would be regarded as upper primary in character.

The president of one of our more conservative colleges objects vigorously to calling a certain course in vocational work mathematics. He said that he had investigated that course called vocational mathematics and discovered that it consisted in showing students how to apply formulae to given situations. He did not deny the need of such teaching in that vocational course, but he did object to calling it mathematics. A similar condition prevailed in a course in vocational English, so called. In this course the students read the lives of great inventors and write essays about them. He challenged the ethics of labeling such a course "English." Again our nomenclature is bad.

Poor labeling in this country probably applies to much more than courses of study. I question whether we know what we are talking about when we discuss the secondary school. The study which Doctor Judd and his committee made a year or so ago seemed to indicate that elementary education as a matter of practice is completed in most of the states of this Union not later than the close of the sixth grade. Yet we commonly speak of grades seven and eight as a part of the elementary school.

In schools where these grades are really doing only elementary school work there must be a lot of lost motion.

One thing we should determine, then, is what constitutes secondary education. I am inclined to think that in localities where the economic well-being of the people is high, and where the employment opportunities for young men and young women of seventeen, eighteen and nineteen years are not great, it will be increasingly necessary for society to keep young people of these ages in some sort of an institution which can keep them profitably employed. Under such conditions it may be expected that an eight-year secondary school system will displace the present junior and senior high schools.

How shall we proceed to find out the situation? Since we have not organized our plan of attack I shall mention some of the things we hope not to do. First, we do not want to do what one of our professors terms "finding out what everybody knows already and putting it in language nobody can understand." The college men, you know, have a word to describe that process—the word "research."

Second, we must not accumulate so many details, or so much information, that we shall get lost in the woods.

Third, we do not want to do over again work already done or waste any effort. At the present time we are writing to all of the state superintendents and commissioners attempting to find out what information these states gather, in what shape it is, whether it is available for us or not, what local surveys have been made, are in progress, or are about to be made. We are also sending men from the Bureau of Education to confer with some of these people in an effort to coordinate their studies and the nation-wide survey.

In this study and in other investigations undertaken by the Bureau of Education I believe that efforts should be directed towards discovering trends and establishing techniques. In the first place, we want to be able to say to the educators of this country, whether they be engaged in private education or public education, or in elementary, secondary, or higher education, that we find the trends to be so and so. In other words, we shall do for every person who is charged with the administration of schools what the Department of Commerce may be reasonably expected to do for the business world. Let us say in effect: "Gentlemen, this is the situation, and this is the present trend, and if you see in it anything that enables you to use your school money to better advantage, well and good." After we have said that, it is no concern of the Bureau of Education if the State of New York acts in one way and the State of Georgia in another way. It may be that from such information the governing authorities of the Catholic Church will proceed in one way, and those of the Lutheran Church in another way. It should be a matter of supreme indifference to the Bureau of Education whether a school system, either public or private, acts on its findings.

The second thing I think we should do very soon is to provide some techniques or procedures by which a people, particularly a school board of laymen, may measure a school system of a community and ascertain whether it is doing the thing that the community expects it to do.

School systems are becoming very costly. I think they are going to become more expensive before they do well what the people expect them to do. We must make it possible to compare the results one community gets with what another gets for the same money or for less money. Those, I think, indicate the legitimate functions of the Federal Bureau of Education.

I feel sure it would be a serious mistake for us to undertake any administration of education ourselves. Let the bureau interpret education, discover trends, suggest methods of study, and in occasional situations where an umpire is needed and nobody else is willing to take the risk of being killed, let us come in and serve as umpire.

WM. JOHN COOPER.

U. S. Bureau of Education,
Washington, D. C.

Excellence of Service as a Determining Force in Profitable Business

I PRESENT any discussion of industry and its tendencies and of the effect which educational methods and educational ideals may have on industry with great diffidence before an audience like this, except that I have a great desire that we shall enlist in that cooperation which Dr. Mann described to you the service of education and the trained mind in the processes of industry and that the ideals properly held in the educational world shall be applied to the ethics and standards of business.

I would plead, first, for a peculiarly wide open-mindedness on the part of the educational world. We in the business world are appalled by the evidence of new and vast forces that reach into every home and affect the living standards of every individual. We have not learned how to control or to harness them. We need the help of all thinking men that we may extract the rightful service from them without injury to the social fabric.

You know in your world that each day we are disproving formerly accepted tenets. We need a peculiar open-mindedness and receptivity to new ideas as new evidence is presented. For example, I have just come from a presentation before the Chamber of Commerce of the United States by Mr. Kettering, who is perhaps the leading single inventive mind in America today. He illustrated (and this can be applied also to other phases of physics law) the development of ocean cable communication; that the textbooks had said (and properly, under the information at that time) that 100 per cent of magnetic transmission was pure iron; that the moment you added any per cent of alloy to that iron you reduced its communication availability. And some individual said, "Why, I am going to experiment with that. We need something that will carry messages faster than magnetic iron."

So he began to mix certain per cents of nickel, and at 1 per cent of nickel there was a distinct fall in transmission, and at 2 per cent a further fall, at 3 per cent a further fall, and at 34 per cent the line had gone directly down. His friends told him, "You can see the curve is maintaining itself. At 100 per cent of nickel you will have no transmission whatever. Why continue?"

He said, "I am going through with the experiment on an original idea."

And it continued to fall. At 64 per cent, it mounted perpendicularly to 64 times the transmission of pure iron. At 65, it fell again. At 74, it went to 1,100 times the transmission availability of pure iron, and at 100 per cent it had sunk to zero. The curve was right. But because of the mysteries of physics law, there were two points in the scale which raised the availability of magnetic iron and revolutionized transmission of messages. It is the basis on which we will build ocean telephones today.

In the world of industry we are passing through something of the development of evidences which need to be analyzed with this same open-mindedness. We are in a machine and power age. That has become a trite presentation of industry today. This machine and power age is building new social customs, and particularly a new social independence. The problem of the future is going to be that of how to employ leisure, not how to produce efficiently for all the needs of the world.

If advance in wealth and possession is going to mean in this country solely the means of selfish gratification, then our civilization is indeed in peril. We are again brought face to face with the fact that, after all, the component parts of human society have broken down into the individual and it is the individual ideals and attainments, individual aspirations which will govern the state of our society and decide whether it is one which justifies its existence or not.

Organized business is trying to build ethics and standards that march with this new day. It is trying to build standards in America for our young people which will close the door to unfair exploitation by mere power or wealth or influence.

Five years ago, for example, the Chamber of Commerce of the United States adopted fifteen principles of business conduct which are writing themselves clearly into the standards of business practices today. One year ago the Chamber of Commerce of the United States condemned departures from the standards of common ethics and fairness and did it with a public sentiment inflamed by a single spectacular instance which has since been punished.

Organized business is trying to teach young people in America that leadership today does not rest on the attainment of dollars alone but on an analysis of how eminence in industry and possession has been attained and how it is being used. It remains for the educational world to supplement these efforts of industry by building individual standards of self-control, to put proper valuation on the enormously effective implements which modern industry is forcing into the hands of our people.

To do this the educational world must understand, sympathetically understand, these vast forces that are operating in industry which, as I said before, reflect consciously or unconsciously into every individual home. For example, education must start with the old law that the creation of wealth is the conversion of natural resources; that any process which speeds that conversion inevitably creates more things to divide among the homes of our people, thus raising the general average possession, usually called raising living standards.

The modern problem is not how to create this wealth but rather how to speed it up and then how to govern its distribution. In this process America has been forced by certain conditions not altogether of its own making to take a peculiar leadership. I do not mean that it is sufficient in that leadership that America converts in this process half the raw material of the world annually, half the world's iron, steel, cotton, lumber, and copper and oil. That isn't sufficient. Those are tools to work with. But we have found the key to individual welfare through this speeding up, this process of creating more things to use and to divide. We have found that the way to do it is to enlarge the individual production by equipping it with implements which make individual man's effort more effective. The whole gamut of the civilized world in that process runs from the coal index of $24 per capita machine equipment in the United States down to $1 per capita in Russia. It is no accident that the national wealth of America, the result of this process, as compared with the national wealth per capita in Great Britain is almost exactly the same proportion as the horsepower per capita—4½ times the national wealth per capita. These things follow automatically. The responsibility of industry is to continue this process, to render it fair and just. The responsibility of the educational world is that there shall be an understanding of these processes, not a blind opposition to them, because they are inevitable, and that we shall create processes for the fair distribution of the product of this wealth.

How fast this has operated is borne in upon me by a comparison of the conditions when the Chamber of Commerce of the United States was formed seventeen years ago with conditions as they are today. I do not wish to bore you with figures, but I must use some figures to illustrate a point out of which you will extract the human meaning. When that chamber was formed seventeen years ago, the national annual earnings of our people were $32,000,000,000; they are now $90,000,000,000. In 1912 when that Chamber was formed we possessed as evidences of the symbol of general welfare 1,000,000 automobiles; there are now 25,000,000. As evidence of the distribution of that product of wealth creation, I mention such spectacular instances as the distribution of ownership of the American Telephone & Telegraph Company—then they had 45,000 stockholders; there are now 450,000 stockholders. As evidence that our people do not spend recklessly but that the old sturdy qualities of thrift and provision for the future are still inherent in our people, we had total savings of $7,000,000,000 at that time and there are now $26,000,000,000. We had life insurance of $13,000,000,000; now there are life insurance contracts totaling $72,000,000,000.

These are the indexes of wide distribution. But more important than that, translated into the individual human terms and the phase which is interesting to you and just as significant as any statistical index is the fact that forty years ago the average child had 4½ years of school training and now he has 7½. It is the independence of selection, the independence of action which has followed the creation of wealth under modern industry which has created this revolution in the educational world as well.

Seventeen years is a very short span indeed in the development of industry. Industries and individuals in that quickened progress are necessarily out of step. There are inequalities. There are displacements. In industry itself the closed car and the heated home almost wrecked the great industry of wool textures. The rise of general buying power of our people to the silk era almost destroyed certain phases of the cotton industry. Silk, firmly established as the universal wear of our people, is today battling for its supremacy with rayon, a product of the research laboratory. It is inevitable that there shall be cases of distress in industry and individual cases of distress in human existence under this process so quick and so miraculous.

I heard last week of one particularly pathetic instance, of a manufacturer in New England, who had developed a very large business in selling embroidery silk, largely to women. Three years ago he built an entirely new factory, a very modern building, invested $2,000,000, his total life's earnings, in it, and today a handful of employees occupy a factory that was built for 3,000 factory hands, because our women no longer use silk for embroidery.

It is the business of industry to try and forecast these displacements in time to cushion these changes on the individual industry and the individual. It is the business of the educational world to realize these new forces are of unusual extent and significance and to create the open-mindedness, the examining mind which will help project itself far enough to see these changes coming, perhaps to avoid disaster and distress.

There is one other phase of modern industry which I want to put before you and that is its incidental and unavoidable social service. Industry develops its products for the profit motive. It cannot maintain itself unless it does earn healthful profits. The extent of those profits is a matter of public opinion and governed by the free play of competition. But this is what I want to accent to you. The radio, for example, was developed under the motive of profit, for gain. Today it has created the miracle of radio programs to these intrepid explorers in the Polar South, instantly acknowledged from those heights of menacing silences, has created a miracle of communication in the far corners of the world instanced by that most striking example. We have electric refrigeration, which helps preserve foods. We have the perfection of glass and metal containers which distribute seasonal foods throughout the entire year. We have the automatic heaters that preserve equable temperatures in our homes. We have the vacuum cleaner, which preserves cleanliness in our homes.

The curious thing is that all these products of industry and a thousand others developed under the motive of profit nevertheless reflect inevitably into social service. In the United States, for example, the falling rate of sickness and the declining death rate show that modern industry has contributed its share toward sanitation and hygiene, which eliminates or reduces sickness and defers death. The United States death rate, for example, averaged for the five years beginning the century, twenty years ago, was seventeen per thousand and it is now twelve.

Curiously enough, that again reflects into industry. Life insurance has made unexpected gains by the fall from its expected ratio of death losses. It is the reason why we have a great industry of life insurance firmly buttressed with resources, possessed of public confidence—72 billions of private contracts in this country for redemption at the longest within the span of one single life, private contracts, many times all the reparations and Allied debts about which there is so much discussion, although those international obligations are based on the entire wealth of whole peoples. It is the most striking commentary of how private enterprise has been able to build itself into public confidence here and the scale on which it must operate. We have a right to be proud that we have made such standards of private contract that such enormous obligations are accepted as every-day events.

There has developed with this national progress another new tendency that requires the study of the educational world. America is going into the international field, inevitably. Fifteen years ago this was a debtor nation. Now it has become the chief creditor nation of the world—within fifteen years, not a single generation. Last year the sales of foreign securities in this country to investors were double that of Great Britain, which in the popular estimate still holds the leadership of the world in finance.

The effect of these processes which I have traced so briefly is that in America we possess today two-thirds of the entire banking capital of the world. Moreover, based on the long tradition of popular education in this country, the ingrained aspiration for knowledge and mental training, we have developed in our advanced institutions and technical schools an army annually poured out double that of all the rest of the world combined.

Capital and management, the resources which establish industry and the brains which direct it, are the very life of industry everywhere, and we cannot have such a predominant position in the possession of those two factors of industry without having forced upon us a leadership in industry in every corner of the world.

Our youth will be forced, if they are not attracted, into developing industry in all these foreign new countries. Wherever they go, they are going to carry the market for American machinery, American parts, American replacements with which they are best acquainted. But the problem before you and before industry itself is, What will they make the name "American" to mean in these foreign countries of the world? With what ethics and standards of practice will they go? We in industry know they will translate those things which they have been taught to regard as successful, and we hope as right, in industry at home. What will you do with the young people of this country, so as to teach them to carry the title "American" with honor wherever they may go in pursuit of their private fortunes? Will you hold aloof with this miracle of living standards unfolding before you, or will you study and understand and use these forces?

A professor of economics in one of our colleges said a few weeks ago that this country was engaged in an orgy of speculation, a fever of extravagance, because the prices of securities on the great security markets, reduced to daily prices, daily values, exceeded the value of the investment in plant and equipment. Think of it from this aspect.

The banking world has already moved along to where buildings and land and equipment are taken as factors of value, but only as implements from which profits can be made by the governing mentality that directs that business. For the first time in the world's history, in this age of adequate buying power, with an enormous market capable of absorbing the products of industry of superior quality to any extent, we are putting a premium on brains. The prices of security values are far beyond the real cost of replacing land and buildings and machinery. Those aren't the earning power. It is the genius or inspiration, the organizing ability, the management that makes profits from these implements that the investing public of America is groping for today. They want a share in the ownership of brains. It is an era of brains over bricks.

The academic world should be the first to recognize that and the first to welcome it, and it is discouraging to find those who should lead academic thought in this country failing, because of the influence of old traditional tenets that are clearly being moved by new forces of remarkable effectiveness, to recognize the premium the world is ready to give for the first time in history for the possession of superior directional ability and trained mentality. In industry we are beginning to recognize it. We insure brains and management today for vast sums, just like we used to insure buildings against fire, because their loss will be a real depreciation of assets and resources. It is the earning power which is the product of brains, trained brains, that is beginning to demand and secure a price and a reward today such as the world had never dreamed of before.

I am led to refer again to one of the many striking things which Mr. Kettering said this morning. He spoke about being brought, in his research laboratory, a sample of new metal which was claimed to be of unusual hardness. He said, "I gave it to the machine shop and asked them to drill some of it out so we could analyze it." They came back and said that the drill wouldn't touch it. He said, "Why?" "Well," they replied, "it is too hard." He said, "That isn't the trouble . The trouble is the drill is too soft."

He said, and it is true (and it is true in industry as well as education), that nothing is impossible; whatever the human imagination can visualize, that thing can be done by somebody some time, some way, and it is a great truth·

In the field of industry we have, as I said before, new problems that arise out of new forces which we had never foreseen. We had never dreamed that in fifteen years a people would build its buying power, first, on mass production, which is still the accepted standard of American industry and is no longer the single standard—mass production which equips the 5 and 10 cent store with a greater range of articles than the last generation dreamed could ever sell for 5 and 10 cents, in this day of higher costs, so called; mass production which gives you a better Kodak today for $10 than you could have bought fifteen years ago for $25, a better automobile today for $500 than you could possibly have bought for $1,000 fifteen years ago. Along with mass production which established buying power in our people has come the market in America, for the first time in the world's history, of hundreds of thousands of people who can pay any price for the product of industry which has a peculiar personal appeal, quality, superiority of line or color, or usefulness. It has developed some extraordinary extravagances which need the sober thought of every citizen. We have the $350 basket of flowers a commonplace at Christmas time in New York.

That reminds me of a story which will interest you. A little French aviator that I became acquainted with a few years ago began flying in 1916 in the French Army. He has an honorable record with all the French decorations. He shot down twelve or fourteen enemy planes and was shot down himself, his plane in flames. He said to me, "I made up my mind I never would burn to death, so I shot myself with my pistol on my way down."

After landing, by some miracle, and after being left there neglected for hours, his father looked him up. His father was a surgeon. He drew him out, found a spark of life and built him back, so that he flew again. But with that restlessness illustrated by that spirit of adventure, courage and daring, he went all over the world after the war. He sold shoes in Russia, bought milk in Spain to make cheese, and he landed in America two years ago, the selling agent for a French perfume house. He studied the American market. The highest priced perfume on the American market sold for $8 a bottle. He said, "I think the American people will buy a $25 bottle of perfume of good quality."

He was discouraged by Coty and Pinaud and all the other established businesses here, but he brought it out. It sold very readily. He told me a year ago just before Christmas that he was in a florist's shop in New York on Broadway, Thorley's, and they were making up an elaborate basket of flowers. He asked its price. He was told it was $350. "Do you sell many?" he asked. "Oh, forty or fifty a year."

"Who buys them?"

"A young man with plenty of money who wants to impress a young lady with his devotion."

He said, "At once it occurred to me that a man who could spend money to that extent would be worried for fear the young lady would hardly appreciate the extent of his sacrifice, because flowers have no standard of value." He said, "I will bring out a bottle of perfume which will be so generally known that the young lady will realize how well off he is and how devoted."

He showed me the bottle. It is about that high, black jet, with a pure gold top, and a gold key to lock it so that the maid can't help herself, 8 ounces, sold for $450 in every store, and if any of you gentlemen want to make a hit at home, just ask for Christmas Eve perfume and buy a bottle.

JULIUS H. BARNES.

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The Character Education Inquiry

I CONSIDER it quite inappropriate for me, not a scientist, and not an educational investigator, to present minute details of the character educational inquiry to this group. The men who did the work, Dr. Hartshorne or Dr. May, should make such a presentation. I gather that what is wanted here is rather a more general analysis of the problems of character education, and then some clues as to the way in which this particular investigation was pointed.

I need not emphasize with this group the importance of character education. Mr. Barnes talked about brains and management as important in business, but it is brains and management and character that are necessary. Without the element of character—and he himself implied this all the way through—we know the difficulties that lie in the way.

Character education as I see it, as it is carried on today, could be typified by the rather extravagant and really ridiculous illustration that I am about to give.

It once occurred to me, "Wouldn't it be a fine thing to make some money in education? Why not search for the profits rather than for just service?" So I said, "Let us build a school to house 500 or 1,000 boys and let us not work just for knowledge or power, but for some quality in life which is of real value." It occurred to me that one thing that is well rewarded in this world is height. The taller you are, generally speaking, the more successful you are. I said, "Let us devise a school to teach boys to grow tall."

So we bought a building in the country, with a play field, good cuisine, comfortable living arrangements, and a good faculty. Then we advertised for boys to come to the school. We would see that they could read and write and that they had arithmetic, and so on. We stated in our advertisements that if a boy was 14 years old he would have to be 5 feet 6 inches high or near that, in order to get into our school, and then we would carry them through. We decided that in February we would pick out those boys who had only grown a quarter of an inch during the year and write their parents a letter saying:

> DEAR SIR:
>
> Your son is in our school, but we think the educational environment is not quite suited to his needs. He would probably do better under other auspices.

Then we would expel the 150 short ones and bring in 200 more boys. In June we would carry on the same process, and carry it on for five or six years. At the end of that time, we would have a short bishop come in to give the commencement address, this group of 6-foot boys would parade across the platform, and we would say to the parents, "See what our school has done for your boys."

That is much the way in which we carry on character education today. If a boy gets in a scrape, we expel him. If he has any character defects, if he cheats or lies, he is sent to some other school. Naturally, at the end of three or four or five or six years, the products of our educational institutions must be reasonably honest and upright,—at least, they have not been caught. That is what we are apt to confuse with character education.

We know that when we educate by selection on that basis it merely means that we do not know quite what we are trying to do and that we are not attacking the problem consciously. We are groping for something in the dark.

For a long time past schoolmasters and scientific investigators have been groping at this problem of character education. As I see it, it has at least three distinct parts, each one of which has formed the basis for investigation. There is little doubt in the minds of many people that a knowledge of what is right and what is wrong has something to do with character training. The schools of Japan have an elaborate system of teaching Japanese boys and girls what is right and what is wrong. The French schools have an elaborate system of that sort. Many of our own schools, certainly Sunday schools, have included training for what is right and what is wrong. Teaching what is right and wrong is not very different from teaching a person etiquette or teaching a person the laws of health, or even teaching a person the difference between the back stroke and the Australian crawl, or an objective knowledge of how to play games and sports of one kind and another, or teaching the arithmetic table. We know the laws of association, and they apply very well.

But we also know, as Dewey and others have pointed out, that a mere knowledge of right and wrong in and of itself does not necessarily lead to good conduct. People can know what is right and wrong and not be any better behaved than if they did not know what is right and wrong at all. We are acquainted with doctors who know all about the laws of health but who live unhygienically. We know people who can recite the etiquette book backward and forward but who are very uncomfortable at a formal dinner, because they cannot distinguish between a finger-bowl and a teacup, nor decide which knife to use. We know that nobody ever took a correspondence course in swimming. It does not work that way. Dewey pointed out very clearly the distinction between ideas about morality and moral conduct.

The second aspect of character training or of character itself is right and wrong conduct. Educational investigators and psychologists have given us a great deal of information about conduct training and about how to teach a person to perform in a particular way or to acquire a certain skill. That again follows perfectly definite psychological laws.

The perplexing and difficult part of character education is the fact that neither one of those nor both together are sufficient. Other characteristics and qualities are needed. There is not only the connection of these so that the right conduct comes as the result of the right ideas, but there is demanded a certain sensitivity on the part of the person which enables him to make moral choices in new and trying situations, and then follow through with corresponding conduct. It is in that larger field, the field not merely of knowledge of right and wrong, nor that of right and wrong conduct, but that larger field of sensing the rightness and wrongness in new, peculiar, trying, and tempting situations, and then following with right conduct or with wrong conduct as the case may be, that this character education inquiry has pointed its work.

A large volume has been published, called "Studies in

Deceit," and there are two other volumes now on the press which I have read in manuscript form, one dealing with restraint and one dealing with persistence. A large number of tests and experiments have been made, and a number of extraordinarily immoral tests devised.

The results have been rather interesting. They show that good responses, in connection with these tests, go along with other good things in the world. Children from good families do better than children from poor families. Children on this side of the railroad tracks do better than children on the other side of the railroad tracks. Children of certain nationalities do better than children of certain other nationalities. Children that come from reasonably well-off homes do better than those who come from poor homes. Children enrolled in Sunday schools do better than those not enrolled in Sunday schools,—but there is no relation whatever between attendance at Sunday school and the success of some of these things.

Some of the organizations for character building, definitely designed for that purpose, showed extraordinary results. In the case of one that is quite popular with us in New York the experiments showed that children who have been there one year are worse than those who have never been in it at all; those in it two years are worse than those in one year; those in three years are worse than those in two; and so on. Certain even more popular organizations have become quite disturbed over some of these results.

But, as I said, many of those things should be reserved for the specialists. An outsider should not be allowed to interpret them. However, I ventured to present a few features of the general results at the meeting of the Department of Superintendents, and I venture to present these to this group. They are guesses or impressions made upon me by reading the experiments and the conclusions that are drawn.

I think this inquiry, before we get through with it, will point the way toward our finding out in time that character education requires so large an educational situation and one so much like life itself that it is impossible to carry it on within the four walls of a classroom. It points to the excellence of the boarding school, a school that has control of the pupils for twenty-four hours a day over an extended and protracted period of time.

If we cannot have boarding schools for all, it means that the day schools have the problem of compensating somehow or other for their lack of 24-hour control. It means, then, either a long extension of the school day or a harmonizing of the work in the school with the work of all other social agencies that bear upon the pupil. The home must be tied up with the school, the neighborhood, the church, the movies, the theater, the press; all of the agencies that have a bearing upon the pupil must work together harmoniously in this direction, or we must have a longer and a more complete control of the pupil. The kind of thing required to give the types of situations that the pupil needs cannot be given in any course of study or in any classroom or by any direct teaching. It is a big proposition.

The second hint that comes from these investigations is the very great importance of the education of small children. Personally, I once had a kind of prejudice against the bringing of little children into school and working on them. It seemed rather silly to me. I have had a feeling that if we wanted to economize in education in the United States, perhaps the best way to do it might be to leave all children out of school until they were ten or twelve years old, and then start to teach them to read. You could get them into college if they did not start going to school until they were ten, and thus save the cost of four or five years of education. But I can see plainly that that is all wrong—that you probably would have such a series of habits established in these children by the time they were ten or twelve that you could not unteach them.

Thorndike once said, "You can teach an old dog new tricks, but you cannot make him forget his old ones." A great deal of evidence in these experiments shows the persistency of attitudes and habits and reactions that children have acquired already. There is no doubt in my mind whatever that these experiments will throw greater emphasis on the early education of children, and with it will go a far greater responsibility upon the parents at home, a greater need of parental education for the proper care of little children. Many of these bad character elements apparently start at a very early age, and they must not be handled in an inexpert or amateurish way. Most parents only learn how to do it after their children are grown up.

The third guess that I have comes from a sort of attitude test that was given to find out whether or not the pupil respected his teacher or his school, or whether he was enthusiastic about his father and mother. Was the child in a genuine sense happy and contented and satisfied with the institutions with which he was connected? Did he love his home? Did he love his school? Did he love his church or his neighborhood? Was he well adjusted? An extraordinarily high correlation was found between that and good character traits all up and down the line. This means that the child who has a teacher that he does not like or does not respect is not going to get much from him. The child that is in the broken or unhappy home or in the discontented neighborhood is not going to develop well.

The fourth point is that this study is going to present a real challenge to individual instruction. Apparently character elements are not an individual matter. They go in bunches. They go in groups. They go according to the set or the pack or the gang. There is evidence to indicate that that is the way they are taught. There is a "birds of a feather flock together" idea in it One gains a sort of group spirit which is developed in bunches of people and not by single individuals.

I do not know very much about any kind of psychology, still less about social psychology, but I am wondering whether the social psychologists may not in time come to our rescue and give us a little further information about the psychology of educating people in groups. It has become so fashionable recently to talk about individual instruction and suiting everything to the needs of the individual, I have a suspicion that these investigations are going to show the need of suiting education to the demands of the group.

Those four things, then—first, the all-day school; second, the effect of the early age; third, the happy pupil; and fourth, the group instruction—as I see it are the hints that are coming out of this particular investigation.

Over in China the people for ages have been drinking tea, not knowing that cholera germs and typhoid germs are killed by boiling the water to make the tea. For ages Chinese mothers have been feeding Chinese children bean curds and bean sprouts, which contain all the proper vitamin content, although they didn't know anything about the proper vitamin content when they were doing it. In other words, scientific investigation of the carrying of typhoid and cholera has justified the tea-drinking habit in China, and vitamin content has justified the Chinese method of feeding children. In other words, research has crept up upon what was ordinary common practice.

In my judgment, the schoolmasters of Eton and Harrow and Rugby, who took children only from good homes and kept them there for a long time, allowing almost no other social institutions to get in their way, providing ample playground facilities and play-field and encouraging the masters actually to play with the pupils on the campus, and claimed that they got character education as a result, knew what they were talking about. I think that the conditions under which they worked and the plan that they had not only gave character by selection but actually trained it to a certain extent.

Our problem, as I see it in American education, is: How, for millions of pupils in day schools from all kinds of homes and all kinds of surroundings, within a relatively short time can we give what England has been able to develop for her élite? In my judgment, to give genuine equality of opportunity in American education is a thing that is going to be so expensive and so difficult that I wonder whether the American people will ever be able to afford it. It is going to require the greatest of intelligence and the utmost of skill on the part of schoolmasters to wind their way through that maze.

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Materials for the Social Studies

THE PURPOSE of this paper is to create, if possible, in the minds of members of the Council a lively realization of the importance of more teaching of the social studies and of the unique difficulties which stand in the way of a general introduction of social studies into the curriculum of school, especially schools below the college.

It may not be out of place to say, by way of introduction, a word with regard to the failure of American schools to provide adequate courses dealing with social institutions. We are far behind the older civilizations in this matter. French schools administer a course known as "Manners and Morals." In this course pupils are taught among other topics the reason why the government controls weights and measures, the reason why taxes are levied, and the principles which govern insurance. In American schools, weights and measures, taxes, and insurance are relegated to the course in arithmetic. Pupils are taught how to calculate social obligations, but they are very seldom instructed in the meaning of social organization. In German schools a great deal of time is devoted to explicit instruction in social matters. Part of this instruction is classified as instruction in religion.

The explanation of the fact that American schools have neglected social institutions is to be found in part in the relatively simple form of social life which existed half a century ago when the school curriculum of this country was formulated.

There is certainly no need at this date of any elaborate argument to convince ourselves that the conditions of American life are no longer simple. There is very general recognition of the fact that the agencies of informal education, such as the home, are no longer able to give the oncoming generation the insights which are necessary if social controls are to be respected and accepted as guides of personal conduct. The problem which confronts our educational system is the problem of introducing into schools of various grades a body of instructional material which is not now present and which shall foster a type of thinking and lead to a type of behavior adapted to modern conditions.

As in every great educational emergency, so here we find earnest advocates of different methods of solving the problem. The manufacturers of the country have expressed themselves as favoring a form of education which shall make for better social adaptations through direct vocational training. The manufacturers were able in 1917 to persuade Congress to set up a federal agency known as the Federal Board for Vocational Education which was commissioned to correct the deficiencies of the school system by operating in a measure independently of the ordinary school organization and promoting the development of courses in trades, agriculture and home economics. The program of the Federal Board has recently been enlarged, and the Board has been provided with ample resources to promote the program for which it was organized.

Another and wholly different theory of the method of socializing the young people of this country is held by those educators who are convinced that the study of history is essential to social intelligence. History is the oldest of the social studies; it has a recognized place in the programs of schools of all grades. It has an ambitious program which it defends by saying that the broad perspective which history provides is necessary for any adequate understanding of present-day institutions.

The historians have been organized and have made pronouncements on these matters since the Madison Conference in 1892. They have, since that date, had a perfectly definite program for the secondary schools. In the last few years they have assumed leadership in the discussion of the whole problem of organizing social studies. At the last meeting of the American Historical Association announcement was made of a liberal grant from the Carnegie Corporation for a study of the proper place and content of the social studies in schools.

A third movement was inaugurated in 1908. At that date there appeared the first of the so-called community civics. Community civics differs from history in that it deals altogether with present-day institutions. It differs from ordinary civics in that it gives relatively little attention to government and more to industry and such social institutions as the church, the family and the school. Community civics derives its material from sociology, political economy and current events. There is a certain immaturity about community civics which is readily understood when it is remembered that even the colleges and universities of the United States had no courses in economics until the middle of the 80's and that the content of such a science as sociology is a matter on which sharp disagreements exist even among specialists.

There is always danger, when partisan interests are intense and divergent, that development will move slowly. Progress in the development of a program of social studies has been very slow; indeed, it has been discouragingly slow in recent years.

The dangers which beset the social studies from disputes within the educational system are comparatively slight as contrasted with the dangers which arise from the fact that social studies deal with matters on which there are violent disagreements in the world outside the school.

We are all acquainted with the fact that the Federal Trade Commission has been giving much attention in recent months to the charge that public utilities corporations which believe in private ownership have invaded the schools and corrupted some of the members of the teaching profession by payments of money and by other forms of compensation. Personally, I am convinced that there is more harm in keeping discussions of public utilities out of the school than can possibly come from reading the material which the Federal Trade Commission has been scrutinizing.

There is only one other field, so far as I know, in which bitterness resulting from disagreement reaches the pitch which it reaches in the field of economic theory, and that is religion. The American school system has for a long period omitted religion from its program of instruction because it was recognized early in our national history that there is no possibility of avoiding disrupting disputes where religion is under discussion. There are some who hold that economic and social disagreements should be kept out of the school curriculum. Boards of education and school superintendents are reluctant to assume any risks.

A striking example of this fact is to be found in the experiences of American schools during the war and immediately following the Armistice. The Food Administration saw clearly early in the war that the American people needed instruction, and it recognized the fact that the schools could very advantageously be made an important channel for the imparting of instruction. Accordingly, with the cooperation of the Bureau of Education, the Food Administration began the publication of a series of lessons entitled "Lessons in Community and National Life." These lessons dealt with a variety of problems of social and economic life and were designed to bring to the attention of pupils and others the fact that social cooperation is essential to the existence of the nation.

The lessons were prepared by some of the most competent experts in the United States. They were well received and extensively used. No question was raised about their validity until after the Armistice. After the Armistice the Industrial Conference Board issued a pamphlet which was prepared by Magnus Alexander and was distributed to members of boards of education in all sections of the country. This pamphlet attacked the lessons as full of pernicious economic doctrines. As the result of this attack the lessons were brought under the suspicion of boards of education and their use was promptly discontinued in a great many school systems.

I cite this example in support of the statement made earlier that boards of education and superintendents of schools are timid in assuming responsibility for any materials of instruction about which there is a possibility of disagreement.

What has been said might be greatly expanded by reference to the cases in which individual teachers have been subjected to discipline for teaching doctrines which were not acceptable to their superiors or to the boards which employed them.

The situation in the colleges is different in some respects from the situation in the lower schools, because it is assumed that college students are mature enough to be introduced frankly to intellectual disagreements. But there are evidences in the colleges of a certain timidity in attacking social issues, and it is quite certain that nowhere in higher educational institutions have social studies received the attention which has been bestowed on the natural sciences. Social problems will certainly be increasingly recognized as the problems which require the highest type of human thought for their solution. Is it too much to urge that social sciences receive the emphasis which the importance of social problems demands?

What has been said up to this point can be summarized in the statement that American schools are doing much too little at the present time by way of explicit instruction of the great body of pupils in social matters, and there is unique difficulty in effecting any changes in the situation.

This statement is made with full recognition of the fact that recent years have seen a rapid expansion of the university departments of sociology, economics and political science. In spite of these movements in the higher institutions, it is strikingly true that the rank and file of even the college students of the country are relatively little affected by the social sciences and the high school and elementary school pupils are hardly reached at all.

The situation can be remedied only by the creation of some agency strong enough to cope with the forces which inhibit the introduction of social studies into the curriculum of schools. The leaders in American education have been discussing the need of new social elements of the curriculum for some years, and I believe that every one is convinced that there must be something in the program of all schools which will balance the intensive training in the control of material forces which all pupils now receive through the natural sciences.

Many students of modern life have become convinced that the sources of power which the natural sciences have opened up are in many instances under the control of barbarians, if not of savages. If the social sciences are not cultivated to the point where human relations are as well understood as natural forces, civilization itself is in jeopardy.

If I am right in the conclusion that there is general recognition of the need for more attention in the educational system to social studies, the question which immediately arises is: What is the next step?

I am firmly convinced that the next step is the preparation of concrete, detailed materials which can be put into the hands of pupils as lessons on social matters. The methods of teaching in American schools are such that any one who tries to influence these schools must have material in textbook form which can be studied by pupils and can be used by teachers to guide them in giving instruction.

I am equally convinced that in the social studies the preparation of textbooks cannot be left to individual initiative. I have followed with great interest and with profound admiration the highly stimulating individual efforts of such workers as Rugg and Marshal. I have no doubt that, if such efforts are continued over a long period of time, social material in the school will become more common than it is at the present time, but the movement can be greatly accelerated and the quality of the material can, I believe, be greatly improved if cooperative action can be substituted for individual effort.

It was pointed out a moment ago that the preparation of textbook material is the standard method of injecting material into the school program. It is time also that the standard method of preparing textbooks is for individual writers to collect and arrange the material. The point which is to be emphasized here is that the social studies require a unique treatment. It is relatively easy for individual authors to write texts on physics and rhetoric because the material in these fields is fairly objective. It is comparatively easy for an individual to prepare a history that will be valid and usable. Social studies are unique. They are full of pitfalls for the individual. The single writer is usually partisan, and he is always limited in his comprehension of the manifold social backgrounds of pupils. The individual writer, even if he is clear and judicial, has no such authority in social study as does the individual writer in natural science.

My plea is for the recognition of a necessity of a new type of educational endeavor, namely, a series of experiments under normal school conditions conducted by a commission. This commission should be equipped to secure and sift a large body of material and formulate it in such a way that it will go into the schools with sufficient sanction behind it so that teachers will be free from the inhibitions which now handicap them in devising social instruction.

I am encouraged to press this recommendation because the trend toward such a plan is clearly apparent in the history of American educational commissions. The commission which a few years ago dealt with mathematics operated almost entirely as a round-table group. The classical investigation brought together some imformation from the field and stimulated much cooperative investigation. The Modern Language Committee prepared, in its word counts and in its tests, actual instructional material. Is not the next step in curriculum making an extension of the program which has made the Modern Language report so conspicuous a success?

The Modern Language Committee has seen clearly the desirability of a continuous program of experimentation which shall extend and refine the work which it has started. My plea for a comprehensive experimental attack on the social science program is nothing but an application in this important field of the experience of American education.

There is one implication of this suggestion which may as well be frankly stated. The earlier inquiries to which reference has been made were initiated and sponsored by groups of specialists. The social sciences cannot be properly organized without subordinating to the general good all special interests. I for one do not believe that the historians have a right to assume preponderant influence in the organization of social studies. For my own part I hope that the present commission organized through the Historical Association will be content to prepare a preliminary report and then make way for a commission which has no more interest in history than it has in vocational education and other unhistorical lines of training.

I trust that I have not transgressed the bounds of propriety in discussing a commission which has not yet rendered a report. If I have, my defense is that this problem of getting the proper material for a social studies program is, I believe, the major duty of American education at the present time. We are in a crucial period when vocational education and professional education are struggling with problems of internal and external reorganization. So-called liberal education is also in process of reconstruction with reference to its contents and its boundaries. There is an important sense in which all of these movements are part of the problem of arranging a suitable plan of social instruction. There is grave danger that the pursuits of many isolated lines of inquiry and reform will leave American education an uncoordinated whole. Is there not somewhere a central agency which can bring into harmonious relation the various reorganizations which are going forward?

Perhaps I can make clearer the proposal which I am laying before the Council by pointing out the fact that such time as has been allotted in the past to social studies in the program of elementary schools and high schools has usually been taken from history. It has been thought that civics as a close relative of history should be intimately combined with the older subject. History teachers have, as a result, come to think of social studies as conflicting rivals and have been reluctant to make way for these new subjects.

When we think of social studies as of major general importance rather than as mere supplements to a history program it becomes evident that time must be secured for social studies by readjusting English and Mathematics and Foreign Languages, not merely by securing a few hours at the expense of history.

I believe that the only solution of the problem which has been pointed out in this paper is the creation of a commission which shall include in its membership a majority made up of persons who are not advocates of any particular subject. The administrators of schools occupy a central position which ought to make them representatives of general interests. I believe that administrators can perform a large service by participating more actively than they commonly do in determining the contents of instructional programs. A commission including a number of administrators should, I believe, be created and be directed to consider certain very comprehensive plans for the reconstruction of the program of instruction in the schools. Such a commission should command the services of those who can supply it with material which has the sanction of expert authority, and it should be able also to employ those who can give the lessons prepared a form appropriate for pupils in the schools.

I know of no national organization to which this proposal can be more appropriately submitted than the American Council. This Council has sponsored some of the large and productive undertakings of recent years in the field of curriculum reorganization. Is it improper to suggest that it initiate a movement or find an agency which will attack the problem of providing social study materials for the schools in such a way as to put social studies in the center of a new curriculum? The proposal is not that social studies be added to the present curriculum but that a comprehensive reconstruction of the curriculum be undertaken with a view to making social studies the core of all that is taught in the schools.

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Cooperative Experiments in Personnel Methods

MEASURING men has always engrossed human beings. In politics, Americans, knowing the responsibility attaching to the presidency of the United States, recently weighed the qualifications of each candidate for that office. In industry great organizations employ experts who select applicants for positions. In education the measurement of candidates for admission to school and college or for promotion from one class to another, and for degrees and honors, employs much of the time and strength of teachers.

Scholastic grades have been the usual measures both in business and in college for marking academic success and estimating promise. In a recent publication of the Phi Beta Kappa Foundation occur the words: "What is the magic touch, the hidden principle by which so infallibly Phi Beta Kappa has sifted the men of her many colleges and chosen those who were fated to distinction?" "This is the secret—it has chosen its members among those who in college and university gave themselves to study and won distinction in it." The writer then offers, in confirmation of his thesis, the record of members of Phi Beta Kappa in "Who's Who in America." Of the alumni of Wesleyan College, 1890-99, 11 per cent of those who were graduated without honors are mentioned in that work; 30 per cent of those who were members of Phi Beta Kappa are included. In twenty-two colleges 2 per cent of those graduated without the golden key and 5.9 per cent of those who won it are named in "Who's Who." The president of the American Telephone and Telegraph Company studied the records of 3,806 graduates of 104 colleges employed in that large company and related college grades to salaries received in the A. T. & T. Co. He found that 48 per cent of the highest scholarship group were in the highest salary group and 47 per cent of the lowest scholarship group were in the lowest salary grouping. There would seem to be considerable reason to agree with the Phi Beta Kappa author: "Equally certain it is, though an unwelcome doctrine to many, that in general the measure of one's attainment in school and college is the measure of one's success in life."

But if Phi Beta Kappa has a "magic touch, a hidden principle by which so infallibly" it has sifted the men of her many colleges and chosen those who were fated for distinction, why did only 30 per cent of the Wesleyans become distinguished? Why did only 5.9 per cent of the honor students of the twenty-two colleges attain the distinction of inclusion in Who's Who? Why did only 17 per cent of the highest tenth in scholarship win a place in the highest salary group of the American Telephone and Telegraph Company? What has become of the 70 per cent of the Wesleyans and 94.1 per cent of the graduates of twenty-two colleges "infallibly" selected for distinction? What has become of the 83 per cent of the highest tenth in the scholarship group of the Telephone Company?

Possibly there is some weakness in our measure of distinction. "Who's Who" contains the names of some rascals; and certainly it does not contain the names of all men and especially of all women who have attained distinction in our land. Salary in the American Telephone and Telegraph Company or in any other organization is perhaps not the best criterion for measuring distinction, else we should be obliged to honor some Hollywood star above Woodrow Wilson, and Judas, possessor of thirty pieces of silver, above the penniless figure on the cross.

Possibly, too, there is some fallibility in our measure of scholastic success—college grades. Years ago Dearborn showed that college teachers of the same subject varied strikingly in their practice of assigning A's and F's, some giving ten times as many A's as others did and less than one-tenth as many failures. Meyer found that in a period of five years one professor had never permitted a single student to fail out of one thousand, whereas another in the same college reported nearly three hundred of each thousand to be failures. Elliott and Starck discovered that one hundred experienced teachers of mathematics assigned grades ranging from twenty-eight to ninety on the same set of replies on an actual examination paper. At Minnesota in recent months it has been proved that women have as good a chance to graduate if they make twenty-five on a scale of one hundred as men who score thirty-five. "Scandalous," Thorndike called the situation in 1910; and, in spite of the great movement for scientific measurement in education which then began, it still is scandalous.

When a student gets a grade of 90 per cent, what is it 90 per cent of? Should grades represent absolute achievement? Should they measure relative success in view of capacity, industry, effort? At present they do both—irregularly. I remember a young instructor who consulted me concerning the grade of John Smith. John had not shown a mastery of the art of composition which would justify the teacher in saying that he was ready for the next higher required course in the subject. "But John," she said, "was hampered by the speech habits of his family and neighborhood, by poor school preparation, by the necessity of working twelve hours a week in a garage to earn his way through college; he has tried very hard and shown a fine spirit." You recognize the fallacy? Senator Blank has been convicted of corruption; but he is tenderly kind to his mother. Dr. So and So's unskillful operation killed the patient; but the doctor is one of the most generous contributors to the Community Chest. Achievement and moral qualities we are separating in the schools and colleges. Scholastic grades are becoming more reliable because we are setting up objective comparable measures of achievement. Grades, which, bad though they be, are the best measures we have had, may through the use of achievement tests approach more nearly that reliability we have attributed to them in the past; but in these cautious scientific days we are not likely to look for "infallibility." At the same time the virtues of the student, which teachers have generally sought to recognize in some way, can be taken into consideration through a recorded personality measurement.

Achievement tests have engaged the attention of the American Council on Education Committee on Personnel Methods. A sub-committee (H. E. Hawkes, Chairman, V. A. C. Henmon, Agnes B. Leahy, M. R. Trabue and Ben D. Wood) has prepared for school and college use achievement tests described in the EDUCATIONAL RECORD for October, 1928.

Preparation of a B group of tests is in progress. Norms for the test will be ready this Spring. Lack of adequate norms has held back sales of the tests. Nevertheless, the first edition of all A. C. E. tests has been exhausted. The American Council on Education Psychological Test was used in the Autumn of 1928 by 258 institutions in measuring 82,000 students.

Of the widespread experimental use of the achievement tests prepared by the American Council on Education it is unnecessary to speak at this time. The Pennsylvania Study of Schools and Colleges, conducted by the Carnegie Foundation for the Advancement of Teaching in cooperation with the Pennsylvania Education Association and the educational institutions of that state, already affords a very interesting demonstration of the usefulness of achievement tests not only in securing more reliable measurements of individuals but in determining the relative success of colleges in advancing the achievement of their students. In this, the Pennsylvania Study confirms the experience of the Modern Foreign Language Study conducted under the auspices of the American Council on Education. Achievement tests have made it possible to measure more accurately some kinds of progress made by students of a subject at the end of a given period in this college and that, in this group of institutions or in that one, in the schools and universities of this country and another. Although this is interesting and important, the chief value of achievement tests is to be found in the more reliable measure of an individual's mastery of a subject. In one large institution in the Autumn of 1928, all men in the entering class took achievement tests in all subjects offered for admission and for continuation in first year. These achievement tests showed that 48.6 per cent of these students were more competent in subjects offered for admission than their credentials indicated. For 230 individuals the dean was able to effect a saving of 1,115 semester hours of college work. If this is possible in this institution—and it is not the only one in which such a testing of achievement has had such results—it may yet be possible, by substituting measures of mastery for measurements of time, to bring about even that economy of time in education for which the American Medical Association and the Department of Superintendence and many individual educators have been pleading for a generation.

Professional schools have revealed an interest in this program. The Columbia University Law School and that of Yale have experimented with achievement tests at the professional school level. A scholastic aptitude test for medical students prepared by Messrs. F. A. Moss, O. B. Hunter and H. F. Hubbard—the two seniors of whom are medical men—and printed by the American Council on Education for experimental use, has been given to 2,000 students in eighteen Class A Medical Schools.[1] A sample of this test may be secured from the American Council on Education.

It is apparent that, for a national program of measuring achievement, a bureau which will prepare or cause to be prepared additional tests and keep records of the results of tests administered and make studies of these records is a present necessity. The movement for more dependable measurement is already an extensive one, involving complex and costly cooperative experiments, but, as Arnold makes Empedocles say:

No eye could be too sound
To observe a world so vast,
No patience too profound
To sort what's here amass'd;
How man may here best live, no care too great to explore.

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[1] See Journal of the American Medical Association, April 27. David A. Robertson: "Educational Relations of the Professions."

Along with the movement to evaluate academic progress by measuring what students do has developed the desire to measure personality. What *is* Personality? For centuries theologians have quarreled over the significance of the term. For hundreds of years philosophers have discussed its meaning, and still they disagree. In our generation psychologists and, more recently, bio-chemists, with their talk of ductless glands, have tried to define it. Even now we do not know what it is. But though we have not yet defined electricity, we measure it in terms of what it *does*. So every day, as I suggested at the outset, we measure men in politics and industry and education; and we especially measure personality by what it does.

The significant things men do can be observed and recorded. Educational institutions need to learn what are these significant things. Some indication of what the colleges had been trying to find out about their students will be found in the Supplement to the EDUCATIONAL RECORD for July, 1928. At this time I call attention only to the experimental personal record card for secondary schools and that for colleges prepared by the committee of which President L. B. Hopkins of Wabash is chairman and of which Mrs. Mary H. S. Hayes and Messrs. J. J. Coss of Columbia, D. T. Howard of Northwestern, and J. H. Willetts of Pennsylvania are members. Of these cards the American Council on Education printed 40,000 secondary and 35,000 college cards and offered these for sale at cost. Of the first, 25,000 have been distributed; of the second, 34,000. Again the Pennsylvania Study, under the direction of the Carnegie Foundation for the Advancement of Teaching, must be named as the user of the largest number of these cards, 18,745. Other institutions which have ordered college personal record cards in quantities varying from 50 to 1,500 are:

Akron University, Barnard College, Berea College, Brown University, Catholic University, Columbia University, Georgia State College of Agriculture, Grove City College, Kalamazoo College, Lynchburg College, Michigan Board of Education, Missouri Northwest S. T. College, Missouri Southeast S. T. College, University of New Hampshire, North Carolina College for Women, University of North Carolina, North Dakota Agricultural College, North Dakota School of Forestry, Northwestern University, Oberlin College, Occidental College, Oregon Agricultural College, Park College, St. Catherine College, Sarah Lawrence College, Villa Maria College, Wabash College, Washington State College, Washington University, Wells College, Western Maryland College, Western Reserve University, Wichita University, Central Y. M. C. A. Schools, Y. M. C. A. School of Technology.

Secondary school record cards have been ordered by the following:

Lee School, Bell Township Board of Education, Dermont Public Schools, Greenfield Township Schools, Kennett Square Public Schools, Norwin Union High School, Pottsville Catholic High School, Roman Catholic High School of Philadelphia, St. Mary's Convent, Stowe Township Jr.-Sr. High School, Villa Maria College, Wichita University.

The Council, eager for cooperation in the experimental use of these forms, has encouraged college officers to adapt the card to their peculiar problems. One of the most interesting adaptations has been made by the principal of the East Side Continuation School of New York City, who has ingeniously arranged a form for the Randex file. A committee of the Ninth Annual Industrial Conference at Pennsylvania State College reported a preference for a single card rather than a folder for use in a file.[2]

Another kind of folder is that devised by Wesleyan University. Experience in the use of various forms of cumulative record and of various items of the record will be carefully studied. The speed and accuracy with which one can secure from these cards data concerning individuals I have tested at more than one college when, representing the Association of American Universities, I have endeavored to discover institutional practice in administering problem cases. Deans of professional schools and representatives of prospective employers are interested in the increasing experimental use of the cumulative personal record card which so conveniently enables one to understand a student in terms of specific things he has accomplished inside and outside of the classroom.

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[2] Pennsylvania State College Bulletin, June 15, 1928. Proceedings of the Ninth Annual Industrial Conference. Similar preferences were reported at the meeting of the Personnel Methods Committee at Princeton, May 9 and 10, 1929.

An interesting recent development has been the preparation of a personal record card for college teachers. The North Central Association of Colleges and Secondary Schools at its 1929 meeting decided to require institutions to maintain adequate records concerning the teaching staff. The American Council on Education has submitted a tentative form to the chairman of the Committee of the North Central Association. In cooperation with this and other committees the Council may be able to develop a form of use to colleges and universities.

Personality measurement in both education and industry has been largely a matter of rating traits. The July, 1928, Supplement to the EDUCATIONAL RECORD tells the story of how the colleges have sought by this means to record judgments of their students and how the Committee on Personality Measurement made a simple rating scale for experimental use. This scale to a large extent avoided the pitfalls of the traits listed by one member of the committee who had studied the literature. It seeks rather to secure answers to colloquial questions regarding things done by the person studied. Of this tentative personality measurement sheet 55,000 have been printed, 7,800 have been distributed as samples, and 30,900 have been sold. The following institutions have used them in quantities:

Akron University, Belhaven College, Buffalo University, California University, Catholic University of America, Cedar Crest College for Women, Columbia University, Connecticut College, Georgia State College of Agriculture, Grove City College, Kalamazoo College, Michigan University, Missouri Northeast S. T. College, Missouri Southeast S. T. College, North Carolina University, North Dakota Agricultural College, Occidental College, Oregon Agricultural College, Pennsylvania State College, Rosemont College, St. Catherine College, Syracuse University, Vassar College, Villa Maria College, Washington University, Wesleyan University, Western Maryland College, Western Reserve University, Wisconsin University, Wichita University, Y. M. C. A. College, Central Y. M. C. A. Schools, Y. M. C. A. School of Technology, Deerfield Academy, George School, Springfield School Department, Michigan Board of Education, Elmwood School.

Stanford University, Clark University, the University of Washington and the University of Tennessee have decided to incorporate the rating scale in their admission application forms. Certain institutions have used modifications of the form. Some reports have been received from those who have experimented with the rating scale. Highly significant is the extraordinary percentage of reports returned; in one large university members of the faculty cooperated 100 per cent. Miss Beatrice J. Dvorak of the Department of Psychology of the University of Minnesota applied it to graduate students of psychology to determine the reliability of the rating scale as a method of personality measurement. Her studies enable her to conclude that "the scale affords a reliable measure of personality when ratings are secured from a sufficient number of judges under favorable conditions, with each judge willing to cooperate in making careful ratings." A study by Dean Francis F. Bradshaw of the University of North Carolina has shown that a rearrangement of space on the form elicits fuller concrete illustrations of significant actions than the first form of the sheet. Two forms based on his findings are now available.

Careful ratings depend upon the ability of raters to observe accurately actions which are significant of personality. Teachers can be trained to make these observations and record them concretely, as has been proved at the University of Chicago. In composition courses students who are required to write character sketches, employing in their themes the technique of the dramatist and narrative writer who illustrate personality by delineating the speech and action of their characters, have succeeded in observing fellow students and recording evidence concerning deeds which justify a check mark on the rating scale. Indeed the second page of the personality measurement sheet has won cooperation from many principals and teachers who have hitherto been unwilling to use any rating scale. Illustrations of such personality descriptions were printed in the July, 1928, Supplement to the EDUCATIONAL RECORD. The following specimens are printed on the personality measurement sheet:

Of a college senior: "In my course in Elizabethan drama he voluntarily built to scale models of the Blackfriars Theater and the Fortune Theater based on the work of Chambers, Albright and others and demonstrated Elizabethan methods of staging several of the plays read."

Of a college senior: "Independently collected and classified correctly one hundred type specimens of fossils found in the neighborhood of the college."

Of an eighth grade boy: "Finding in English assignment, the introduction to Burns' 'The Cottar's Saturday Night,' a reference to Robert Fergusson's 'The Farmer's Ingle' as a possible inspiration of Burns' poem, he looked up Fergusson's poem in the home library and compared it with that of Burns. At the same time, desiring to read Burns in the Scottish way he mastered the phonetic system of Sir James Wilson's 'The Dialect of Robert Burns as spoken in Central Ayrshire' which he also found in the home library, and so interested the boys of his class in the pronunciation of Scottish words that even at the end of the year the lads still called each other by appropriate Scottish nicknames and used Scotticisms which they found in Burns and Wilson."

"At the age of eleven began collecting diatoms from local ponds and streams and studying their forms under his own microscope. Now possesses collection of microscope slides, including some presented to him by scientists in Department of Agriculture and Carnegie Institution, specimens collected by Shackleton, Scott and other expeditions."

Several college fraternities have shown an interest in the possibilities of the personality measurement sheet in connection with the choice of new men and the development of the characters of their members. In one fraternity chapter I have seen forty ratings of each member by all of the others. These ratings are made at the beginning and at the end of the year. Used by a discreet member of the fraternity who is also a personnel officer of the university, these personality measurements are proving useful in the guidance of men. On the rating sheets of one man I found over and over again a check which indicated conceit, selfishness, or arrogance. From the personnel officer I learned that the lad was shy and probably had an inferiority complex which resulted in certain objectionable defense reactions of the effect of which he was unconscious. The older member in charge of this personnel program expected soon to confer with this student and was confident that out of a confidential chat about his ratings by the other fellows would come an improvement in personality. This device, therefore, leads at once into the field of character education.

"Every man," says Cervantes, "is the child of his works" (Cado uno es hijo de sus obras. Don Quixote I, 4). But Browning declares:

> 'Tis not what man
> Does which exalts him, but what man would do.
> —Saul xvii, 9.

How are we to discover a man's desires? How can we know the intensity of those desires? Has any psychologist found a way to measure the human will? Psychologists are engaged in a study of that emotional phase of personality.

The Committee has been especially interested in the Vocational Interest Test designed by Professor E. K. Strong, Jr., of Stanford University, 46,000 of which have been distributed. Vocational motivation has solved the educational problem of many college men. In Colorado a study of the vocational purposes of college students showed that about 60 per cent knew what they intended to do when they finished college; the failures in the first year were very largely from the 40 per cent of those who had not yet related their college work to their life careers, in which they were determined to succeed. In the eleventh century Guibert de Nogent, when his mother suspected the gallant lying of her student son and stripped his shirt from his small scarred shoulders and wept over them, saying that he must give up going to school, cried out, "If I die for it, I shan't stop till I have got my learning and am a clerk." In those acts which a man performs in the intensity of his purpose there is some measure of his will. If we can observe and record those deeds as well as other significant actions, we may be able to understand and even measure the personality of a student.

One of the interesting phenomena in education in this country and abroad is the rapprochement between partisans of general education and vocational education, the realization that all education is one. The Vocational Guidance Association, for instance, places now much more emphasis on the second than on the first word of its title. Liberal arts colleges are moving toward the same center and recognizing the possibility that educational guidance of the individual student may include advice as to professions and other vocations; in short, the consideration not only of the abilities of the individual and the development of them but their adjustment to an effective and happy life work. To help the colleges in this guidance of their men and women the Committee on Vocational Monographs (C. R. Mann, Chairman, W. W. Charters, A. B. Crawford, Emma P. Hirth, and C. S. Yoakum) has published three documents —"The Profession of Medicine," by Hortense Hoad; "Librarianship," by W. H. Cowley; and "Investment Banking," by Donald Watt. The University of Minnesota is preparing a monograph on teaching. Some twenty institutions will be invited to cooperate in criticism of these three monographs in accordance with the plan announced in the July RECORD. It is hoped that the study of these experimental forms will result in an improved model. There is a possibility also that, through cooperation with the associations interested in vocational guidance, useful monographs for school use may be developed. This committee has also distributed a bibliography of vocational information prepared at the University of Michigan.

There is at present throughout the United States a very strong interest in vocational guidance. The nation-wide Sunday afternoon broadcasting of discussions of this topic by members of the J. C. Penney Foundation has brought a large response. The demand for expert guidance has rapidly developed. Among those who would satisfy it are many charlatans who advertise themselves as vocational guidance consultants or personality analysts—present-day successors of phrenologists and palmists and readers of cards or tea leaves or stars. There is need for caution. Perhaps some day community centers, possibly in connection with schools, will afford a service not only to young persons but to adults.

The Committee on Personal Development was created at the Briarcliff Conference in 1928. The chairman is Dr. Arthur H. Ruggles of Providence, R. I. The other members are W. W. Charters, J. J. Coss, C. R. Lingley and Dorothy

Stimson. As a first step in its program this committee has prepared a bibliography which contains all of the items worth while in the field of personal development and character education at the college level. This list has been compiled by Miss Grace Manson of the University of Michigan and will be published shortly. The committee has also been studying personality development programs of seventy-five institutions of different types in different parts of the country and will send representatives to study what is chiefly contributing to character development in certain colleges.

Tools have been produced through cooperation. Further cooperation will reduce duplication of effort and provide yet more effective tools. In March, 1928, six associations concerned with personnel methods held their annual meetings in Cleveland during the same week and joined in some sessions, including one which passed a resolution requesting the American Council on Education to take the lead in arranging for fuller cooperation in a similar conference in 1930. An even larger number of associations will join in the conference to be held in Atlantic City, February 20 to 22, 1930.

In the use of the tools and the study of their value there is likewise a fine cooperation with the Council on the part of associations and institutions. In each college, too, there is evidence of increasing cooperation of administrative officers and teachers. Personnel work in industry, it has been discovered, cannot be isolated. (See Minnesota Personnel Program, p. 3.) Personnel work in education cannot be segregated. Of course there must be a center for the keeping of records, and of course there must be leadership. But that leader may be a president or a dean of administration or a dean of men or dean of women, or a registrar or a professor of psychology or sociology or education or English or an alumni secretary or an employment officer or chairman of a curriculum committee. From among such administrative officers or, better, through the cooperation of all of them, a personnel program will come into being. In this program contributions can be made by the health officer; the department of psychology, expert in testing; the department of education—proficient in measuring the rate and accuracy of reading and diagnosing and removing causes of failure; committees on scholarships or loans or employment or eligibility; fraternity advisers, heads of dormitories, Y. M. C. A. and Y. W. C. A. secretaries, chaplains, ministers and physicians in the community, teachers of freshman composition and *all* other teachers. Indeed ideally the personnel program is the responsibility of each teacher. Allocating responsibility for character education to compulsory chapel or a required course in ethics will not make moral men and women; assigning the task of developing correct habits of speaking and writing to an English teacher who has the student one hour a day in a classroom will not make students masters of their mother tongue; and laying on a single personnel director responsibility for discovering individual abilities and guiding their development will not attain the end toward which the personnel program moves. That purpose requires the cooperation of all teachers and others in discovering the abilities of individuals and guiding their development so that the individual may be most effective and happy in adjustment to his world.

DAVID ALLAN ROBERTSON,
American Council on Education.

Report of the Executive Committee

THE four regular meetings of the Executive Committee were held on October 13, 1928, and January 5, March 9, and May 2, 1929.

At the October meeting, Dean Virginia C. Gildersleeve resigned as a member of the Executive Committee and the vacancy was filled by election of Dean Dorothy Stimson, representing the American Association of University Women.

During the past year the membership of the Council has been increased by the addition of two constituent members, two associate members, and fourteen institutional members as follows:

Constituent Members.—Dental Educational Council; American Association of Colleges of Pharmacy.

Associate Members.—National Committee of Bureaus of Occupations; National Association of Deans of Women.

Institutional Members.—College of Puget Sound, Tacoma, Washington; Sarah Lawrence College, Bronxville, New York; Duke University, Durham, North Carolina; Stout Institute, Menomonie, Wisconsin; Illinois College, Jacksonville, Illinois; D'Youville College, Buffalo, New York; East Radford State Teachers College, East Radford, Virginia; Russell Sage College, Troy, New York; American University, Washington, D. C.; University of Alabama, University, Alabama; St. Joseph's College for Women, Brooklyn, New York; Catawba College, Salisbury, North Carolina; Immaculata College, Immaculata, Pennsylvania; Wofford College, Spartanburg, South Carolina.

The total membership of the Council is now twenty-five constituent, nineteen associate and two hundred and thirty-three institutional.

The past year has seen the consummation of the Council's active participation in the affairs of the American University Union in Europe. The term of the grant of the Laura Spelman Rockefeller Memorial for the development of the Institute of International Education expired on December

31, 1928. Full accounting was made as of that date to the Memorial and this accounting has been declared by them to satisfactorily account for the expenditure of the funds.

Although the management of the American University Union offices has been entirely in the hands of the Institute of International Education, the Council has cooperated with the Institute in granting to the Committee on International Intellectual Cooperation of the League of Nations an additional $4,000 to complete and publish a second edition of the Handbook of University Exchanges in Europe. This new and complete edition should be ready in the near future. Arrangements have been made to supply members of the Council with copies. The thanks of the Committee on International Intellectual Cooperation were embodied in a resolution passed at the Tenth Plenary Session, July, 1928, and duly transmitted to the American Council on Education.

The Handbook of American Universities and Colleges, edited by David A. Robertson, has passed its second printing. Up to April 1, 1929, approximately 5,000 copies of this Handbook have been distributed and sold. Plans are now formulating for a revision looking toward a new edition next year.

The popularity of the Council's Psychological Examination for College Freshmen is increasing. Up to May 1, 1929, 258 institutions have used 82,000 test blanks. Last year 189 colleges used 65,500 test blanks. Dr. Thurstone is now making some comparative studies of the scores of these tests from different groups of institutions. Arrangements have also been made to have the test for the next three years alternate forms of the 1928 test so that the reduction tables will be available for use as soon as the tests are given.

The study of the teaching of Modern Foreign Languages in the United States and Canada has been practically completed. Nine volumes of its report have been published and distributed to the libraries of the institutional members of the Council, and the remainder are in press. The Carnegie Corporation has made an additional grant of $10,000 to the Council to insure satisfactory completion of the study. The large committee that conducted the study resigned and the work is being finished by a small committee of seven members. This committee is stimulating individual universities to follow up important lines of inquiry which were started by the study but have not yet been completed.

The Committee on Personnel Methods has issued two experimental continuing record forms, four vocational monographs, one blank for measuring personality, and eight new achievement test forms.

Already 35 colleges and 18 high schools are experimenting with the record forms, 37 colleges are trying out the personality rating blank, and 20 are making a systematic experiment with the vocational monographs to find out which of them best brings to the student the kind of information he needs concerning the vocation in question.

Interest of professional schools in achievement tests has been stimulated. A scholastic aptitude test for medical students prepared by F. A. Moss, Oscar B. Hunter, and H. F. Hubbard has been printed and offered to Class A medical schools. Fourteen of these schools are using the tests during the present year.

At a meeting in Cleveland in February of six Associations interested in personnel matters, a vote was passed asking the American Council on Education to act as the central agency of cooperation to bring about closer team work among associations engaged in this work. This problem will be discussed by the Committee on Personnel Methods at its coming meeting, May 9-10.

The Council cooperated with the Association of Land Grant Colleges in developing and trying out an achievement test in elementary chemistry in twenty-eight of the Land Grant Colleges. This showed wide variations in the results achieved in the different institutions and revealed some interesting differences in the work of the different teachers. Results of this study were published in the EDUCATIONAL RECORD for January, 1929.

An interesting development has taken place in the field of pharmacy. A joint committee, composed of three delegates from each of the three national associations interested in standards of pharmaceutical education, has been formed. These associations are the American Association of Colleges of Pharmacy, the National Association of State Boards of Pharmacy, and the American Pharmaceutical Association. This committee has agreed to underwrite a national study of pharmacy to the extent of $45,000 and has invited the Council to sponsor the study. The Executive Committee has accepted this invitation and appointed a Committee on Pharmacy, consisting of the nine members of the joint committee above mentioned and five representatives of education. The Executive Committee is cooperating with the Pharmacy Committee in an endeavor to secure a second $45,000 to insure a satisfactory study.

This study is more than a study of colleges of pharmacy. The interests of the three participating associations are quite divergent. The members of the Pharmaceutical Association are mostly proprietors of drug stores who must have an adequate supply of competent pharmacists to meet the increasing demands of drug store business. The State Boards of Pharmacy are responsible for practical standards and examinations or licensing pharmacists. The Colleges of Pharmacy, therefore, have the opportunity of wisely adjusting their curricula and standards to the actual requirements of the situation. The plan of the proposed study is to complete and enlarge Dr. Charters' analysis of the work of the pharmacist and to develop standards and instruction methods on the basis of such an analysis. In this the Pharmacy Study proposes to follow the trail blazed by the Foreign Language Study by developing objective standards and methods of instruction based on an analysis of current usage.

The Executive Committee notes with satisfaction the successful termination of the movement started by the North Central Association in March, 1928, to secure an appropriation for the United States Bureau of Education to make a national survey of secondary education. At the last session, Congress appropriated $225,000 for a three year study of this subject by the Bureau. This action of Congress, following a similar appropriation for a study of Land Grant Colleges, indicates an increasing willingness on the part of Congress to build up the Bureau of Education as a national research and information service in education.

Considerable progress has been made in winning cooperation of the Executive Departments of the Federal Government in producing records of usage of those jobs in the Federal service for which college students are sought. The first completed record of this sort is that the of foreign service officer, printed in the April number of the EDUCATIONAL RECORD. The Department of State needs about eighty college graduates each year to enter its school of foreign service, with the idea of making foreign service a life career. It is expected that this description of the activities of the foreign service officer will help both the State Department and the universities in selecting the type of student who will probably do the best work in this field.

The Departments of Agriculture, of Commerce, and of the Interior are cooperating in producing similar statements for similar positions in their fields. As a result, the technique of producing such statements in a manner that makes them really effective has made great progress. In this work the Council is fortunate in having the close cooperation of George Washington University and the part-time services of C. E. Hewitt, former Dean of Engineering at the University of New Hampshire, and A. L. Williston, former Director of Wentworth Institute, Boston.

The Committee has discussed at length ways and means of developing closer cooperation with industrial organizations. It is clear to all that this is a field in which we must make haste slowly. The work with the government departments has thrown much light on the requirements of the industrial situation in that it has developed the techniques required to bring the job specifications from the level of the technicians to that of professional men. It is the sense of the Committee that on this basis we can proceed with greater assurance to develop closer industrial cooperation.

Attention is called to the Treasurer's Report, which shows that the finances of the Council are in sound condition. The estimated income from fees of members, excluding special grants, for the year was $33,940.00. Actual receipts from this source were $36,120.00. The bank balance April 30, 1929, was $10,118.65.

The Director's Budget for the coming year is presented herewith with the recommendation that it be approved.

Respectfully submitted,

S. D. SHANKLAND,
Secretary.

Director's Budget, 1929-30

ESTIMATED RESOURCES

I. GENERAL FUNDS:		
Membership dues 1929–30, $36,940, of which $7,660 have been paid. Balance due	$29,280.00	
Balance on back dues	4,080.00	
Reimbursement from International Fund	1,291.64	
Bank balance April 30, 1929	10,118.65	
		$44,770.29
II. FUNDS FOR SPECIAL PROJECTS:		
Modern Foreign Language Study	$14,938.97	
Committee on Personnel Methods	20,000.00	
Bank balance April 30, 1929, Committee on Personnel Methods fund	4,550.13	
		39,489.10
Total estimated resources		$84,259.39

ESTIMATED EXPENDITURES

	Authorized 1928-29	*Proposed* 1929-30	*Special Projects*	
Rent	$4,500	$4,500		
Salary of Director	12,000	12,000		
Salary of Assistants	8,500	10,000		
Administrative Traveling Expenses	2,500	2,500		
Stationery, Printing and Supplies	1,500	1,500		
Telephone and Telegrams	500	500		
Postage	600	600		
Furniture and Appliances	200	400		
EDUCATIONAL RECORD	4,000	4,000		
Industrial Cooperation	4,200	5,000		
General Expense	500	1,000		
Teachers' Annuity Association	600	600		
Special Projects			$39,489.10	
Total	$39,600	$42,600	$39,489.10	$82,089.10
Estimated surplus				$2,170.29

Treasurer's Report

WASHINGTON, D. C.,
May 3, 1929.

DR. C. R. MANN, Director,
American Council on Education,
26 *Jackson Place*,
Washington, D. C.

DEAR DR. MANN:

I herewith submit three statements of F. W. Lafrentz & Company, being audits for the period from May 1, 1928, to April 30, 1929, on the following accounts of the American Council on Education:

General Fund.
Modern Foreign Language Study Fund, New York Committee.
Modern Foreign Language Study Fund, Canadian Committee.

I desire to submit these papers as my Annual Report as your Treasurer for the past year.

Very truly yours,
CORCORAN THOM,
Treasurer, American Council on Education.

GENERAL FUND

STATEMENT OF RECEIPTS AND DISBURSEMENTS

From May 1, 1928, *to April* 30, 1929

RECEIPTS

Constituent Members	$2,800.00	
Associate Members	170.00	
Institutional Members	33,150.00	
		$36,120.00
Contributions:		
John D. Rockefeller, Jr.:		
For Committee on Personnel Methods	$20,000.00	
For Industrial Cooperation	1,050.00	
		21,050.00
Sale of Psychological Tests		8,798.81
Sale of Record Cards, Scales, etc.		2,039.94
Sale of Report on Personnel Procedure		6.25
Refund on Bibliography Tests		50.00
Reimbursement for Administration Grants:		
Foreign Language Study Fund, Canadian Committee	$250.00	
Foreign Language Study Fund, New York Committee	800.00	
		1,050.00
Interest on Bank Deposits		264.80
Total receipts		$69,379.80
Cash on Hand, May 1, 1928:		
American Security and Trust Company		10,250.82
		$79,630.62

DISBURSEMENTS

Salaries:		
Director	$12,000.00	
Assistants	6,970.00	
		$18,970.00
Rent		3,813.37
Stationery, Printing and Supplies		1,465.01
Postage		566.72
Telephone and Telegrams		433.33
General Expense		1,076.09
Traveling Expenses of Director		1,119.51
Traveling Expenses of Executive Committee		1,010.52
Publication Expenses EDUCATIONAL RECORD		3,139.15
Committee on Personnel Methods		21,582.73
Psychological Test Experiment:		
Psychological Tests	$2,262.19	
Thurstone—General Expenses	3,563.17	
		5,825.36
Furniture and Fixtures		392.60
Industrial Cooperation:		
C. E. Hewitt, Traveling Expenses	$467.45	
C. E. Hewitt, Salary	5,100.00	
		5,567.45
Total disbursements		$64,961.84
Cash on Hand, April 30, 1929:		
American Security and Trust Company:		
American Council on Education, General	$10,118.65	
Committee on Personnel Methods	4,550.13	
		14,668.78
		$79,630.62

MODERN FOREIGN LANGUAGE STUDY FUND NEW YORK COMMITTEE

STATEMENT OF RECEIPTS AND DISBURSEMENTS

From May 1, 1928, *to April* 30, 1929

RECEIPTS

Carnegie Corporation	$10,000.00
Interest on Bank Deposits	537.91
Royalty on Tests	225.12
Sale of Furniture	106.22
Commission on History	34.57
Refund—R. H. Fife	32.83
Transferred from Canadian Committee	1,429.35
Total receipts	$12,366.00
Cash on Hand, May 1, 1928:	
American Security and Trust Company	21,027.21
	$33,393.21

DISBURSEMENTS

Salaries and Wages	$2,002.64
Supplies and Equipment	140.87
Printing and Publicity	13,994.64
Communications	199.03
Travel and Meetings	1,336.59
Expert Assistance	1,599.43
Contingent	850.00
Transferred to Canadian Committee:	
Printing and Publicity	756.86
Total disbursements	$20,880.06
Cash on Hand, April 30, 1929:	
American Security and Trust Company	12,513.15
	$33,393.21

MODERN FOREIGN LANGUAGE STUDY FUND CANADIAN COMMITTEE

STATEMENT OF RECEIPTS AND DISBURSEMENTS

From May 1, 1928, *to April* 30, 1929

RECEIPTS

Interest on Bank Deposits		$268.96
Refund—M. A. Buchanan	$500.00	
Less Exchange	1.25	
		498.75
Transferred from New York Committee		756.86
Total receipts		$1,524.57
Cash on Hand, May 1, 1928:		
American Security and Trust Company		10,834.78
		$12,359.35

DISBURSEMENTS

Salaries and Wages	$427.16
Supplies and Equipment	10.70
Printing and Publicity	7,735.19
Expert Assistance	31.13
Contingent	300.00
Transferred to New York Committee—Expert Assistance	1,429.35
Total disbursements	$9,933.53
Cash on Hand, April 30, 1929:	
American Security and Trust Company	2,425.82
	$12,359.35

The Annual Meeting

THE TWELFTH regular annual meeting of the American Council on Education was held in the National Research Council Building, Washington, D. C., May 3-4, 1929. Delegates from twenty constituent members, six associate members, and forty-five institutional members were present.

The program was planned by the Executive Committee to direct the attention of the Council to recent significant tendencies in American life as a basis for future activities of the Council. The preliminary announcement, reprinted above, page 153, outlined the general purpose and the plan for its realization.

The speakers dealt with various phases of the main theme from different points of view. Eight of their addresses are printed in full herewith. Five more will appear in the October number of the EDUCATIONAL RECORD.

The address of the Honorable Ray Lyman Wilbur, Secretary of the Interior, was given wide publicity through the daily press and has attracted considerable attention. Since the meeting, Secretary Wilbur has appointed a National Advisory Committee on Education to make recommendations concerning Federal organization for education and Federal relations to education.

The Commissioner of Education, Honorable William J. Cooper, described the present haphazard organization of the Bureau of Education and outlined the policies he is pursuing to make this Federal Education Office serve schoolmen as the Department of Commerce serves business men with reliable statistics and other pertinent information. In his opinion the Federal function in education ends when the critical facts are discovered and made known. Every community is itself responsible for its own use of the data furnished.

Dr. Judd's address on Materials for the Social Studies created so much interest that the Council voted to create a committee to attack this problem and made an appropriation of $1,500 to cover the cost of its organization and preliminary work.

The addresses by Mr. Julius H. Barnes, Chairman of the Board of Directors of the Chamber of Commerce of the United States, and by Mr. Spencer Miller, Jr., Secretary of the Workers' Educational Association, suggest opportunities that are evolving for cooperation between colleges and universities, on the one hand, and business and industry on the other. Similarly, Dr. J. C. Merriam's address propounds some of the critical questions with which the National Park service is wrestling in its efforts to make the national parks of greater educational value to the people. Practical cooperation between the Federal Departments that are seeking college graduates and the colleges is already developing in ways that were described by President Cloyd H. Marvin of George Washington University.

The foregoing discussions, dealing with the larger relationships of colleges with other national activities, occupied about half the time of the meeting. The other half was devoted to the presentation of recent advances in objective methods in the internal workings of schools. Of particular significance in this connection are the remarks of Dean William F. Russell on the Character Education Inquiry. This study is opening up new experimental methods of attacking this central problem of all education.

An encouraging report of improving conditions in modern foreign language teaching was presented by Professor Robert H. Fife. Miss Helen D. Lockwood told of Vassar's efforts to relate the liberal arts college to effective living. The year's progress with cooperative experiments in personnel work was related by Dr. David A. Robertson. In all of these the gradual spread and increasing value of objective methods are evident.

An informal dinner on Friday evening was another added feature of the meeting. After dinner President Frederick B. Robinson delivered the Chairman's address on America's Educational Program, as printed on page 166.

The reports of the Executive Committee and of the Treasurer were accepted as printed herewith. The Director's Budget for 1929-30 was approved and an item of $1,500 for the Committee on Social Studies was added. The following officers were elected:

Chairman: Dr. Charles H. Judd, University of Chicago, representing the North Central Association of Colleges and Secondary Schools.

1st Vice-Chairman: Rev. P. J. McCormick, Catholic University of America, Washington, D. C., representing the Catholic Educational Association.

2nd Vice-Chairman: Mr. Shelton Phelps, George Peabody College, Nashville, Tennessee, representing American Association of Teachers Colleges.

Secretary: Professor Henry Grattan Doyle, George Washington University, Washington, D. C., representing the American Association of University Professors and the Association of Colleges and Preparatory Schools of the Middle States and Maryland.

Treasurer: Mr. Corcoran Thom, American Security and Trust Company, Washington, D. C.

Members of Executive Committee: 2 years (to fill the unexpired term of C. H. Judd), Dean Dorothy Stimson, Goucher College, Baltimore, Maryland, representing the American Association of University Women.

3 years, Hon. A. B. Meredith, State Board of Education, Hartford, Connecticut, representing the Department of Superintendence, National Education Association; Dr. C. C. McCracken, Ohio State University, Columbus, Ohio, representing the Council of Church Boards of Education.

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C. R. MANN

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International Intellectual Cooperation

IN 1922 the League of Nations appointed a permanent advisory Committee on Intellectual Cooperation "to develop intellectual relations in the internationl sphere." Since men of learning habitually maintain friendly contacts with their colleagues of other nations, it seemed probable that conscious cultivation of such contacts would be an effective way of developing mutual understanding, and thus of promoting the cause of peace.

The members appointed on this committee were internationally known figures in science, letters and art—Bergson, Curie, Einstein, Lorenz, Millikan, Murray, etc. These are 15 of them from 15 different nations, each with an outstanding record of creative achievement in his field.

Though it secured the voluntary services of such men and women, the League was unable to furnish material support for their work beyond clerical service in Geneva and limited funds for travel expenses. Nevertheless the committee met regularly, made a basic analysis of the field, and established four sub-committees, namely, (1) University Relations, (2) Arts and Letters, (3) Science and Bibliography, (4) Intellectual Property and Rights. Each of these sub-committees is composed of several members of the plenary committee and from 5 to 9 other experts in its special field of work. Each holds at least one three-day meeting between the meetings of the plenary committee. By this process of periodic discussions of specific problems by the same group, the sub-committees were able during the first three years, even without financial resources, to reach reasonable agreement as to the significant features of their problems and the profitable lines of work. It was a period of incubation of a big idea.

Financial support for projects planned by the Committee on Intellectual Cooperation (usually abbreviated to C. I. C.)

came in 1924, when the French Government offered the League office space in Paris and an annual subvention of 2,000,000 French francs to establish an Institute of Intellectual Cooperation to work under supervision of the C. I. C. The offer was accepted, and the Institute began operations in 1925. General services, each with a director, were at once set up for each of the sub-committees of the C. I. C. and work was begun on as many as possible of the projects which the C. I. C. had approved. A special sub-committee known as the Board of Direction was appointed to manage the Institute in the interval between meetings of the C. I. C.

This far-sighted action of the French Government in supplying material support for the projects formulated by the C. I. C. was quickly followed by the Polish Government, which pledged 100,000 francs a year. During the past year the French Government has increased its subvention by 500,000 francs and 17 other nations have pledged from 2,000 to 150,000 francs each.

The present annual income of the Institute amounts to more than 3,260,000 francs (about $130,000).

Four years have passed since the Institute was established. Forty-four nations (including the United States) have set up National Committees on Intellectual Cooperation to work with the C. I. C. and its Institute. Some tangible and many intangible results have been secured. Yet the buoyant optimism with which the enterprise was launched seven years ago, though stimulated by the gift of the Institute four years ago, appears to have faded into a friendly willingness to be shown. The change was well expressed by the chairman of the C. I. C. in a memorandum sent to the members several months before the meeting last July in the following words:

> Considering the high hopes with which the commission (C. I. C.) was inaugurated and the comparative lack of success in realizing those hopes which, through no fault of its own, it has experienced, I cannot but feel that the Commission should make an attempt upon some problem of more general international import and likely to arouse wider interest and sympathy.

Because of this challenge from the chief, the eleventh plenary session of the C. I. C. held in Geneva July 22–26 last was of particular interest if not of critical significance to the future of this enterprise. In order to have full information concerning the status of the movement in the 44 countries that have established national cooperating committees, a special three-day conference of national delegates was held the week before the meetings of the C. I. C. Representatives from 26 nations attended. Opportunity was given each representative to present a report on the activities of his national committee and to make constructive suggestions concerning the whole enterprise.

These national reports revealed such a wide variety of activities and the suggestions covered such a wide range of topics that it was clearly impracticable for the conference to agree on any two or three major projects that would be useful to them all. The sense of the meeting finally crystallized in the following resolution:

> The conference of National Committees on Intellectual Cooperation respectfully requests the International Committee on Intellectual Cooperation to examine in the light of past experience the practical working and the ultimate purposes of the entire organization of intellectual cooperation and submits for consideration of the C. I. C. the accompanying report of its discussions as well as certain particular suggestions contained therein.

The C. I. C., at its plenary sessions the following week, considered first the reports of the several sub-committees. The sub-committee on University Relations reported that the publication of the Handbook of University Exchanges was the most important result of the past year's work. This Handbook was suggested and financed by the American National Committee. A fourth meeting of Directors of National University Offices had been held. The number of these offices has increased from 9 to 15. Mr. Castillejo, Director of the Spanish Office, presented the subject of equivalences of university credentials. A full report of his suggestions will be printed and made the special subject of discussion for the next meeting of these directors. A very successful conference of representatives of institutes for the scientific study of international relations had been held in

London. Dr. Zimmern's report on this conference and its significance is printed in full on pages 259 to 271 of this number of the EDUCATIONAL RECORD.

This sub-committee also reported no progress in the matter of securing funds for post-university scholarships or for exchanges of secondary school teachers. The following new projects were recommended:

Organization of two international congresses, one of teachers of modern languages, and the other of directors of higher education; preparation of a list of works of reference that would be useful to students traveling abroad; collection of the texts of laws and regulations in the various countries concerning the status of foreign professors; appointment of an official of the Institute to act as secretary of the permanent committee on International inter-school correspondence. All these recommendations were approved by the C. I. C.

A recommendation to instruct the Institute to make a thorough study of the question of special travelling facilities for certain classes of scholars was disapproved.

The sub-committee on Science and Bibliography recommended that the Institute be instructed: (1) To prepare a digest of the principles which should guide all committees of experts who cooperate with the C. I. C., a guide to the national services of information and exchange for libraries, and a second edition of the Index Bibliographicus; (2) to carry on official negotiations with the Brussels Institute for the purpose of defining the principles of practical collaboration in the field of bibliographic classifications; (3) to continue its studies concerning an international system of abbreviations of titles of periodicals, concerning the exchange among libraries of information about purchase of foreign books, and concerning international exchanges of publications; and (4) to publish, after consultation with the International Institute of Statistics, the preliminary tables of intellectual statistics collected by the Institute, to study the problems which those statistics show are important, and pay particular attention to statistics on the resources that support science. All these recommendations were approved.

With regard to coordination of bibliographies in biology, physical sciences, economics, and romance languages, the sub-committee reported further study of the projects and negotiations with various organizations but were not prepared to make specific suggestions as to how the C. I. C. could most profitably take part in these enterprises.

The sub-committee on Arts and Letters devoted much of its report to recommendations concerning museums. Several years ago the Institute organized an international conference on museums, resulting in the establishment of an International Museums Office with office space in the Institute. Here a journal, "Museion," is edited and published by the Institute. The sub-committee now recommends that this museum's office be given its own organization staff, and budget within the framework of the Institute. The proposed functions of this museums division of the Institute are: to gather and publish information on reproductions of works of art, on catalogues of public sales of works of art, on fragments of works of art, on approved principles concerning gifts, legacies, classification, exchanges, and editing museum catalogues, on legal requirements for photographing specimens, on exchanges of members of museum staffs, etc. The Bureau of the Museums office was requested to submit a plan of operation as an integral part of the Institute with a proposed budget for consideration at the next meeting.

Friendly interest was expressed by this sub-committee in the protection of the beauties of nature; in international lecture tours on art; in organizing an international broadcast propaganda service on behalf of museums; in the application of scientific methods to the study, protection and preservation of works of art; in methods of ensuring international punishment of offenses against the artistic heritage of each country; in the Congress of Popular Arts held at Prague in 1928 and the proposed exhibition of Popular Arts at Berne in 1934; in plans to extend the activities of the Institute to include music as well as plastic arts; in concerts for children; in international publishers' congresses; and in resolutions of the Congress of Pen Clubs concerning works recommended for translation. The C. I. C. endorsed all of these expressions of friendly interest but disapproved a recommendation that the statutory conditions governing the International Committee on Popular Arts created at Prague be fixed by the C. I. C.

Authors' rights and the protection of scientific property have been major topics of consideration of the C. I. C. ever since it was established in 1922. This year the sub-committee on Intellectual Rights emphasized its conviction that fruitful work in this field requires close coordination of all institutions interested in securing greater protection of intellectual rights, such as the International Bureau at Berne and the recently created Institute for Unification of Private law at Rome. As a basis for cooperation in this matter, the sub-committee had endeavored to prepare a "model publisher's contract," designed to furnish legal guarantees that would ensure to authors good faith on the part of publishers. In the same manner it has prepared a "draft international convention on scientific property," intended to protect scientific discoverers yet insure industrialists against new liabilities toward scientists or inventors. It is hoped that, on the basis of this draft, convention insurance companies may be able to figure rates on which they can issue policies covering such liabilities. A small committee of technical experts is to work along these lines this year.

Projects recommended by this sub-committee for action by the institute are: collection of documents on case law in regard to authors' rights, formulation of an "international jurisdictional sanction" of authors' rights, comparison of the conventions approved at the Berne and the Havana conferences on copyright to determine what principles are common to both and what the essential differences are, cooperation with the International Labor Office and professional associations in studying the juridical and social status of intellectual workers, preparation of a model statute for international associations containing minimum guarantees of freedom, continuation of its efforts to encourage the circulation of books by securing lower customs duties and more liberal postal rates, cooperation with the Confederation of Intellectual workers in studying authors' rights in mechanical sound reproduction and radio.

In closing its report, the Sub-committee on Intellectual Rights points out that a decade is a short time in which to develop juridical institutions, especially in this field of mental activity, in which intellectual subtlety plays a large part and in which it is very difficult to reconcile the views and opinions of legal experts. All of the foregoing propositions made by this sub-committee were approved by the C. I. C.

Five of the six service sections of the Institute are devoted respectively to the work approved by the four sub-committees of the C. I. C. The fields of Arts and Letters are considered together by one sub-committee but are treated separately in the Institute. Hence much of the material in the Report of the Director of the Institute has already been mentioned in the previous paragraphs. The sixth service is called Information. At present over sixty projects are in various stages of advancement in the Institute. Practically all of these have been sent to the Institute with approval of the C. I. C. It is not surprising, then, that the Director's Report ended with a plea for no new projects.

Besides the six general services, which are occupied mainly with the projects approved by the C. I. C., the Institute has developed what it calls "national services," of which there are at present 13. Each of these consists of one "functionary" of the Institute staff who devotes full time to developing relations between the Institute and the intellectual activities of his own nation. They are appointed by the Institute and paid either by the Institute or by the nation concerned.

There has also been added to the Institute a group called "Government Delegates" (Délégués des Etats) whose function is to develop cordial relations between the Institute and government officials in the respective nations. There are 43 such delegates. They are wholly different individuals from the delegates of their respective states to the Assembly of the League of Nations. They met three times last year. Agenda for their meetings are prepared by the Institute.

This group acts in an advisory capacity only. The C. I. C. is the Governing Board of the Institute.

After considering all these regular reports, the C. I. C. took up the suggestion of the Conference of National Committees mentioned above. Having pondered the aforementioned challenge of the chief and listened to the intricacies and the ambiguities of intellectual cooperation for four days, the C. I. C. needed no further evidence of the need for simplification. The following resolution was approved:

> The C. I. C. requests the Chairman, in consultation with the Secretary General of the League of Nations and with the Chairman of Governing Board of the Institute, to appoint a small committee of not more than five members of the International Committee to study the program, work and the organization of the C. I. C. and of the organizations under its authority, and to give opinions on the improvements which might be introduced therein, so as to increase the positive results of their work. This committee shall be authorized to add to itself, in consultation with the Chairman, not more than three other properly qualified persons who are well informed on the questions under consideration.
>
> This committee, when it has finished its work, shall report to the Chairman, who will call a meeting of the C. I. C. for the purpose of considering what shall be done.

It was the sense of the meeting that this special committee might meet for the month of January. It was also agreed that no substitute would be permitted, so that any member of the C. I. C. who accepted membership on this committee thereby agreed to attend its meetings in person.

The wisdom of providing for such an intensive study of the whole work of intellectual cooperation became even clearer during the sessions of the last day, when the C. I. C. met in its capacity as governing board of the Institute. As already noted, the Institute is carrying over 60 projects on its program. Its staff consists of 92, about equally divided between executives and experts, on the one hand, and clerical workers, on the other. The salaries are low: Director, $3,000; Chiefs of Sections, $2,500; Assistant Chiefs, $1,400; Secretaries, $600; Typists, $440. This scale is about 20 per cent below the scale of the French Government for corresponding grades of work in Paris. The pledged income for the Institute for the present year is something over 3¼ million francs (about $130,000) of which 2½ million come from the French Government. The auditor's report showed that the budget proposed for 1929-30 would result in a deficit unless additional income were secured. The C. I. C. reduced the budget by 200,000 francs to insure a safe balance.

The financial worries of the Institute are complicated by the fact that neither the C. I. C. nor the League of Nations appears to have any responsibility for raising funds, though they are designated as the governing bodies. These bodies approve projects for the Institute and leave it to find the necessary material support. The contributions from the French Government and other contributing governments are paid directly to the Institute, so that the Institute must appeal directly to the various governments, or must itself work diplomatically through its government delegates or its national services to increase its own support. This situation can only produce a state of divided attention, not to say divided allegiance, which must frequently place the Institute in an awkward position and make it difficult for the Institute to maintain an unbiased international attitude. That the Institute has thus far succeeded in keeping its international aspect is a tribute to the diplomatic skill of its present director.

The foregoing digest indicates that a difficult task confronts the proposed small committee which it is hoped will be created to study this intricate web of intellectual cooperation. Should the League of Nations make this work an integral part of its activities by assuming financial support as well as direction of the Institute? Or shall the Institute become an independent organization like the Labor Office? At present it is neither. This is the basic question. By the terms of the contract with the French Government, if any changes are to be made in the present set up, notice must be given before the end of the fifth year. The five years end in August, *1930*. What happens this year will be critical for the future of international intellectual cooperation.

One cannot analyze the deliberations of the C. I. C. during the past seven years without recognizing the evolution of a big idea. In the early years their activities centered about protection of the rights and improvement of the status of creative scholars. The tools they sought to perfect were tools of research—bibliographies for example. Most of the projects mentioned above still have the same flavor. They aim to protect and assist the one-tenth of one per cent of the people who are our most precious asset—the productive scholars.

The later projects, particularly the London Conference of 1929, seek to determine the responsibilities of intellectuals in this age of machines. They try to discover how intellectuals can contribute to interpreting the meaning of present social and economic life. Hence these activities may enlist the cooperation of 5 per cent of the population—those of grade A intelligence in all walks of life. Then the tools created are tools of cooperation rather than tools for specialized research. The C. I. C. has not been marking time. It has been evolving techniques of cooperation. These may now be applied widely if the Institute is liberated from its dual allegiance so that it may, with singleness of purpose, concentrate on meeting its responsibilities for cooperation.

C. R. MANN.

International Co-operation in Institutions of University Rank[1]

THAT international co-operation should be fostered by universities is not a pious wish originating in a Committee of the League of Nations. Indeed, the first efforts which were made from outside quarters to interest the Committee on Intellectual Co-operation in this problem showed a certain disregard of what had already been accomplished by universities in the seven centuries during which these foundations have exercised an influence upon the intellectual life of Europe. Projects were submitted for an International University which seemed to rule out the university of the ordinary type as valueless for the promotion of international understanding and which looked to the establishment of a new and special kind of institution. Neither of the three schemes submitted, one by the Indian member of the Committee, another by the Spanish Government and a third by Professor Barany of the University of Upsala, descended into the details of the problem. Analysis, however, soon revealed that the idea of an international University, worked out in the concrete, is either unworkable or a misnomer. For an International University, in any real sense of the two words, implies two things: firstly, the current use of several languages of instruction; and secondly, the coexistence of at least two Faculties. A moment's reflection is sufficient to reveal that no institution could be carried on under these conditions and retain any real measure of homogeneity and *esprit de corps*, except possibly in the case of languages and cultures so closely akin as not to justify the use of the term international.

Nevertheless, the fact that these projects were laid before the Committee on Intellectual Co-operation, had the effect of drawing attention to the subject and thus of promoting its discussion on more practical lines. The problem was recognised to be one, not of creating new official institutions which should attempt to replace the existing activities and traditions, but of extending the purpose and enlarging the range of existing institutions upon an international basis. In this development of the discussion on this subject we may trace an analogy with the development of the discussion regarding the nature and purpose of the League of Nations itself. Originally regarded in many quarters, by impatient thinkers, as a new Government or even State, suspended, as it were, in mid-air, above all the existing political entities, it is now, in the light of nearly ten years' activity, recognised by all, not as a super-state, but as a means of co-operation, new, indeed, in its methods and in its spirit, but not replacing the old States so much as transforming them by its influence. In the same way, the organisation of international co-operation which is gradually being evolved among the university institutions of the world will never be a super-university, but will confine itself to the modest task of facilitating for individual institutions the performance of the work that rightly belongs to them.

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[1] Reprinted from the "Educational Survey," published by the Secretariat of the League of Nations, Geneva, July, 1929.

This work—the contributions of institutions of university rank to international co-operation—is of two kinds, technical and more general. It will be best to describe it in this order.

At its meeting in July, 1926, after carefully considering Professor Barany's project, the Sub-Committee on University Relations adopted a resolution, later confirmed by the plenary Committee, in which, after endorsing in general terms the plan for an international School of Politics, it instructed the Institute of Intellectual Co-operation to discover "what result could be achieved by co-ordinating the national and international organisations already in existence."

The programme of *national* co-ordination thus laid down has been firmly adhered to ever since and has, as will be seen, formed the basis of the scheme of international co-ordination later developed.

During the year July, 1926-1927, progress was slow. When the International Committee met again in July, 1927, it could, however, be reported that a beginning had been made in one important country. The French institutions of university rank, engaged in the study of international relations, had come together to form a Joint Committee under the chairmanship of the Rector of the University of Paris. Thus encouraged, the Committee on Intellectual Co-operation, in July, 1927, drew attention to what had been done in France, urged that similar co-ordination should be carried out in other countries and authorised the summoning of an international conference in the course of the year if circumstances appeared to justify it. Consultations in London, Berlin and other centres followed, and on March 22nd the first "meeting of representatives of scientific institutions for the study of politics" (as it described itself in the resolutions adopted) met in Berlin under the auspices of the Paris Institute.

The Berlin meeting was decisive as a test of the soundness of the method adopted. The representatives of sixteen institutions of university rank, situated in eight different countries, coming together for the first time to discuss their common affairs and, indeed whether they had any common affairs, discovered a large and fruitful field of common labour. It was realised instinctively by all who were present that the conference represented a new study, or rather, the entrance of an old study, too long despised and perhaps debased, into the sacred circle of the scientific disciplines. No definite resolution was passed to proclaim this, but it is implicit in every line of the recommendations adopted, which aim, without exception, at improving the opportunities and instruments of work available to the scientific student of contemporary affairs—the publication of a handbook of information, the exchange of teaching staff, facilities for visiting teachers and other qualified persons, and for the equivalence of degrees and diplomas in political studies, co-operation in regard to reference centers, bibliography, publications and, last but not least, research. Before the Conference separated, it had nominated a Committee of five of its own members to cooperate with the League of Nations Institute in making arrangements for a second meeting.

But even more interesting perhaps than the discussions devoted to instruments of work was the process of self-analysis to which the Berlin conference gave rise. What kind of University institutions, the reader may have asked himself, are these bodies which devote themselves specially to "the scientific study of international affairs?" This is, indeed, precisely the question which the members of the conference found themselves asking of one another. Brought together because of a common subject of study, and finding themselves possessed of a common spirit, they were surprised to discover how diversified they were in types of organisation. For the study of international affairs differs in important respects from other branches of scientific humanistic study, and its special characteristics only became clear when the different types of activity confronted one another at the conference. The analysis revealed that the institutions represented at Berlin (and subsequent additions to the ranks have not modified the classification) can be defined under four heads: (1) centres of study and discussion (*i.e.*, not necessarily *teaching* institutions at all); (2) special and supplementary courses; (3) regular teaching institutions outside the university proper; (4) university faculties of the traditional type.

The collaboration thus established between the institutions represented at Berlin was deepened by personal contacts, and the preparation of the second conference at London in March of this year followed almost as a matter of course. This conference revealed a considerable advance in organisation, both as regards countries and institutions. Of the larger countries, possessing several institutions devoted to the subject, France, Germany, Great Britain, Poland and the United States of America had national "co-ordinating centres" prepared to enter into relations, on behalf of institutions in their countries, with centres or institutions abroad. Italy, though represented at both conferences, had not yet perfected her organisation in this respect. The same is true of Japan, which was represented for the first time in London. Four other countries invited to the Conference, Austria, Czechoslovakia, Denmark and Roumania, each possess a single institution recognised as qualifying them for membership.

In addition to these national institutions, the London conference comprised representatives of certain institutions organised on an international basis. These were the Academy of International Law at The Hague, the Geneva School of International Studies, the Post-graduate Institute of International Studies at Geneva, the Institute of Pacific Relations at Honolulu and the European Centre of the Carnegie Endowment for International Peace. To enumerate this list is to indicate its diversity in types of organisation; but its very variety illustrates what has already been said; for no one of these five organisations, constructed upon international lines for the study of politics, is a teaching institution of the ordinary academic type, still less an international university. The reasons for this must be sought as much in the region of psychology as of organisation and to them we must return.

The resolutions adopted at the London meeting carry one stage further the process of practical collaboration inaugurated at Berlin. The mutual services which the institutions can perform are more precisely indicated, in the light of experience, and, in addition to the common prospectus or handbook which has already been published, the issue of a directory of non-partisan reference centres on international affairs is to be arranged for. But the most interesting feature of the London resolutions was the decision to set on foot certain common enterprises, thus testifying to the growth of a corporate consciousness. Three undertakings of this kind were approved in principle. One concerned the publication of a handbook or lexicon of political terms difficult of comprehension across national frontiers. The second looked to the organisation of a conference of teachers concerned with international studies to discuss the educational problems arising out of this new branch of study and, in particular, the relation between academic teaching and practical experience. The third recommended "the undertaking of simultaneous programmes of research into problems whose range necessitates international co-operation or whose complexity suggests the co-ordination of various branches of study." It expressed approval of the work carried on on these lines in the countries bordering the Pacific by the Instistitute of Pacific Relations, and drew special attention to the recommendation of the Economic Consultative Committee regarding the study of economic tendencies affecting the peace of the world.

This last suggestion affords an interesting example of the value of maintaining close touch between educational circles and the technical organs of the League of Nations, and, indeed, of Governments generally. Within a few weeks of the London Conference, a French and a German economist, Professor André Siegfried and Professor Bonn, were at work at Geneva, on the invitation of the Director of the Financial and Economic Section of the Secretariat, in pursuance of a recommendation by the Economic Consultative Committee to make a first survey of the field of economic policy in its bearing upon peace and war, and their report, when published, should be a powerful stimulus towards the adoption in this field of co-operative programmes on the lines suggested at the London conference.

Finally, the London conference set up an Executive Committee of nine persons, with a quorum of four, under the chairmanship of Sir William Beveridge, Director of the London School of Economics and Political Science, who had presided over the conference "to make arrangements for a subsequent meeting of the conference and to conduct any necessary work of the conference between meetings."

This rapid survey of recent developments would not be complete without a few general conclusions resulting from the experience gathered.

The movement for the promotion of international co-operation on the university plane has had to contend, as has already been indicated, with two rival influences. On the one hand there were those who wished to create, or to transform, university institutions so that they should directly serve the cause of peace. On the other hand, there were those who considered that the interests of peace, and of civilisation generally, were best served by holding firmly to the traditional academic values of intellectual integrity and devotion to truth. The former school, despairing of moulding the existing universities to their hearts' desire, dreamed dreams of founding a Utopian university where their ideal could be realised in all its purity. The latter simply planned to extend to a field hitherto almost untouched by it the scientific methods that had been developed for the discovery of truth in other domains. As the event has shown, the latter school now holds the field unchallenged. The name given by the scholars assembled in Berlin and London to their meetings is eloquent of their philosophy and of their purpose. Propaganda, in one guise or another, may still seek a foothold in the lower stages of education. In this field, at any rate, the universities have repelled it.

The second conclusion that emerges is that international co-operation and, still more, the League of Nations is not a subject in the ordinary educational sense of the term. There has been, in some countries and at some moments since the war, a certain fear that it would come to be so regarded. The multiplication of chairs of International Relations, International Politics, and even International Peace, however desirable in itself, has led to a certain confusion in the public mind. A peculiar virtue is felt to attach to anything bearing the prefix "international" and it is forgotten that the most international of subjects are precisely those for which no such prefix would ever be dreamt of. Everyone can realise the absurdity of applying such an appellation to astronomy, where it would only serve to belittle. But the studies that confine themselves to our planet ought to be equally exempt from a universalising epithet. Geography and history, sociology, economics and political science are all, *ex hypothesi*, as international in their range as "international law." Those who have the responsibility of imparting these disciplines must themselves have a trained sense of international relations and must have learned to see each particular problem against a broader background. In other words, they are, by their intellectual formation, providers of education in international co-operation. Thus it was no accident that round the table in London were found geographers, economists, historians, sociologists, political scientists and lawyers, all of them united, in the consciousness not simply of the international bearings of their particular study, but also of its value as part of the common basis needed by students intending to devote themselves to more specific international work, whether intellectual or practical.

The Berlin and London conferences have thus made it clear that, for international work, as in every other field of specialised intellectual activity, the best and, indeed, the only possible preparation is a good general education. The ardours of idealism are no substitute for knowledge of the stern realities of life, and the true internationalist is he or she who, whilst never forgetful of the ideal, is ready to confront, one by one, every difficulty, whether intellectual or practical, on the road towards the shining goal. Such is the method of science, whether in the field of politics or in the exact disciplines. For those ardent or hasty spirits for whom such tasks are too humble or such achievements too slow, the study of international co-operation and of the League of Nations is out of place. Let the Universities crown them with laurel and let them betake themselves elsewhere to sing their songs or write their prophecies. They have much to give to mankind, but not in this domain.

But out of the convergence of these various studies, now all coming to be recognised as political, a new unity is emerging; and this is perhaps the most interesting result revealed by the conferences. They have shown that a stage has been reached at which a process of cross-fertilisation between the political studies has become possible, and indeed not only possible but urgently desirable if these studies are to exercise their rightful and traditional influence on public affairs. Clearly, this new unity only affects one branch or aspect of the study in each case. There are whole tracts of history, of physical geography, and of the other sciences which have no immediate relationship with politics. But the conferences have shown that the political element—so to speak—in each of these studies can be brought into relationship with kindred elements elsewhere, and it is on the basis of such an association of studies that the institutions for the scientific study of politics are devising their organisation and framing their programmes of teaching. So far, therefore, from causing the mergence of a new special subject, the impulse given by the establishment of the League of Nations has led rather to a process of de-specialisation or, at least, cross-specialisation between existing subjects.

This will become clearer when it is seen in the light of institutions rather than of subjects. For, if the subjects taught in the institutions represented at London and Berlin bore old-established names, the institutions themselves were, with rare exceptions, of post-war foundation. Of those that were not orthodox university faculties, only three existed in 1914: the Consular Academy of Vienna, a foundation of the Empress Maria Theresa; the Ecole libre des Sciences Politiques, a child of the Franco-German War, and the Carnegie Endowment. Of these, the Consular Academy has been completely remodelled since 1918 owing to the break-up of the Austro-Hungarian Monarchy. The remaining institutions, with the exception of the university faculties, have all of them been established since the war. The Royal Institute of International Affairs dates its origin back to the Peace Conference. The Hochschule für Politik at Berlin, founded somewhat later, was born out of the same preoccupations and the various other national institutions have arisen through similar influences. Of the international bodies, the two which have their seat at Geneva are in close relation with the practical work carried on there, whilst the Institute of Pacific Relations at Honolulu resulted from the recognition, following on the Washington Conference, of the vast importance for peace or war of the problems of the Pacific area. In all these cases the guiding impulse has been the desire to bring organised knowledge and scientific method to bear on a complex set of problems with which isolated specialisms and even university institutions of the old type were felt to be unable to deal.

Here, again, educational practice has been following the analogy set by the League of Nations itself. One of the most striking innovations of League technique, as it surely will seem in retrospect, has been the way in which it has been able to draw on the services of experts chosen from many different fields of knowledge and experience. The technical organisation of the League may be said to represent an enlargement of the domain of politics and of the conception of what constitutes public affairs. During the same period political science, as a theoretical study, has been undergoing a similar enlargement, due essentially to the same causes. Anyone wishing to realise how striking is the change thus brought about in both domains has only to compare, on the one hand, the existing technique of the League with that generally in vogue before 1914 and, on the other, the programmes of study and the bibliographies used by the institutions represented at London with the text-books of political science that were in vogue fifteen years ago and have perhaps even yet not disappeared entirely in some quarters.

Apart, however, from the practical contribution of university institutions on the technical domain just described there are certain other more general respects that should never be overlooked in which universities minister to international co-operation.

The university in recent generations has passed through a singular transformation. Dating back as an organised institution to the Middle Ages, when learning was a common possession of a few and the mass were ignorant and illiterate, it has now become in each country the apex of a vast system of public instruction based on the needs and policies of individual States. Six centuries ago, there was no need to promote elaborate methods of co-operation between Salerno, Paris and Oxford; not only a common language but a common outlook, a common body of knowledge and constant intercourse caused the small minority in each community who sat at the feet of the university masters of those days to be constantly conscious of their common purpose and interests. Knowledge was still a unity and its possessors naturally felt a unity of spirit and outlook. To-day, both the increase of knowledge itself and its wide diffusion among the population have rendered that old unity impossible. Increase of specialisation has broken up the field of knowledge and divided scholars from one another, whilst the increased association of centres of higher learning with the public authorities responsible for the general instruction of the country to which they belong has caused universities to become national in a sense undreamt of in the Middle Ages. These conditions render it necessary that the international co-operation which was achieved naturally in the Middle Ages should be developed deliberately by policy today.

To discuss in detail the problem thus opened out would exceed the scope of these pages, but it is clear from their resolutions that the League Sub-Committee of Experts were thoroughly alive to its importance. Several of their suggestions, such as the promotion of exchanges of teachers and the provision of special chairs and of lectures for the students of all Faculties for the promotion of international co-operation, bear witness on this point. This has, indeed, been one of the main preoccupations of the Committee on Intellectual Co-operation itself. It cannot, however, be out of place to indicate a few considerations resulting from actual experience which show the lines on which a solution of this problem may be looked for.

The university of to-day is both national and international. It is national as the apex of the national education and as a home and the best exemplar of the national culture. It is international because every teacher and student in the field of higher education today is necessarily in touch with colleagues who are pursuing similar studies and researches in university centres in other countries. The mould is national but that which is poured into it has an international quality. This quality varies, of course, from study to study; the exact sciences are more withdrawn from the influence of the national *milieux* than the applied sciences or humanistic studies. But it is surely true to say that no university worker in any field of knowledge can to-day remain unconscious of the tension resulting from the double character of his institution. It is just in that tension that resides the specific contribution of the university to international co-operation. The educated man or woman of to-day, unlike an Anselm, an Abelard or an Erasmus, has the roots of his character and personality deep in the soil of his own culture and homeland, and it is just in virtue of the poise and harmony thus obtained that he is able to make his appropriate contribution to the varied intellectual life of his time and, more particularly, of the institution to which he belongs.

Here, by a long *détour*, we reach the explanation of a point which was reserved in our previous discussion—the psychological reason why institutions for the promotion of intertional co-operation have, except in rare cases, the fruit of special circumstances, been developed rather on a national than on an international basis. We are no longer living in an age of universal culture. To-day, an international life, that is to say, a life lived in a society of individuals drawn from many different countries, is something wholly different from what it was five or six centuries ago. It is a mingling of personalities, sharply distinct not only in their language and culture but also in their whole method of thought. This mingling is indeed a necessity if civilisation is to be maintained and the world is not to be involved in the conflicts that must necessarily ensue from the alignment of human society into isolated *blocs* of psychologically distinct groups of peoples. But that it is normally difficult and uncongenial and involves great dangers of friction and misunderstanding is only too well known to those who have made the experiment. That contacts at the lower levels (among traders, for instance, and private soldiers) have not automatically promoted international co-operation is now indeed a commonplace. But it is equally beginning to be recognised that international co-operation, even on the university level, can only take place fruitfully between those who are specially fitted for it, either by personal aptitude or training. Thus it should be no matter of surprise to find that the institutions of university rank for the promotion of international co-operation are almost exclusively national in organisation, in spite of the international character of their subjects of study. It is only in the institutions lasting for shorter periods that an attempt is made to create an actual international society with all the interest and all the tension that such an experiment involves.

The same is true of the associations organised to meet the needs of scholars in their different specialties. International congresses and conferences are and will always remain rare and unusual events. The continuous international contacts of the modern man of learning are carried on in the life of thought and of books and not in outward society. All the more reason for studying carefully the fields in which organised international co-operation can and should be developed and in seeking the appropriate instrument—appropriate not merely in that it meets the particular technical need but also because it does not violate the psychological laws which determine the nature of human contacts. In this way, the experience of the Committee on Intellectual Co-operation and its organs has been of precious value in showing how the values of the intellect, which transcend national culture, can be maintained and strengthened through comradeship across frontiers in a world in which not only organisation but also human character and personality are and will continue to be moulded by the characteristic forms of thinking and feeling enshrined in the universities of individual nations.

ALFRED ZIMMERN.

Natural Phenomena as a Source of Inspiration in Education[1]

IT IS not my idea to indicate that the whole of education is comprised in the word "inspiration," although I might go very far toward making a case for it. Nor is it my wish to suggest that natural phenomena are the only sources of inspiration. I wished rather to utilize a particular type of study which touches the problem of natural phenomena for discussion of the significance of the inspirational aspect of educational work.

I do not know that this body, or any other body, would accept any one definition for "educational program." I recognize it as comprising the means of determining adaptability or capacity of the individual to learning methods for work, attempting to find out what constitutes reality, and making certain that one learns to use imagination.

I realize that the disciplinary attitude of educational work is enormously important. I am quite convinced that it has been enormously overestimated in practically all educational programs. If there is any body or instrument that tends to close itself up tight and become completely impervious to whatever may be pressing upon it, the best illustration I know is the human mind when the attempt is made to pour information or knowledge into it. They say that a camel is able to close up the apertures in its head pretty effectively when a duststorm comes. That is nothing compared to what a young man may do when you attempt to teach him against his will.

I am quite convinced that the underlying principle of the mind in particular circumstances, the motivating principle is the thing of first significance, and if you can go far enough to make that motivating principle interest, then nine-tenths of the battle is already behind you.

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[1] Address before The Annual Meeting of the American Council on Education, Washington, May 3, 1929.

I have not the idea that natural phenomena are the only things that may be used for development of interest or inspiration. I know perfectly well that the world of human life about us represents the first interest to human beings. I am also aware of the fact that there is spread around us a very large thing called nature, which is commonly pretty much neglected, except for drawing upon it for natural resources, or in a few instances, as around this building, attempting to use the beauty of nature as a stimulus to interest in beauty.

I am quite insistent that in any educational process, the element of reality should have an important place. I say this vigorously and advisedly. I talk with too many young men and women going through the educational process, who live in a world that is almost completely imagination. They have hardly a foot or a finger upon the ground. They live in an atmosphere created by the textbook, or by the lecture, or by some formal process, rarely coming out to look upon the world of either human beings or physical things. I am a strong supporter of the idea that reality must not be something that is merely touched. It must be grasped by the fingers of the mind. Someone recently—perhaps Whitehead—referred to education as knowledge treated imaginatively. Knowledge must come through the mind, and must be treated by use of the imagination.

I am, on the one hand, insistent that we use materials as the basis of education; on the other hand, that they be treated imaginatively. I have chosen for the moment to utilize materials that come from the field of nature, although again, do not misunderstand me, I realize perfectly that nothing in the world matters to human beings excepting as it becomes a subject for human consideration or is treated in the human sense.

Having come out of a university, in which I enjoyed the experiences of an educator, in recent years unconsciously I have looked around to find where it would be possible to continue certain aspects of research in relation to education. Once a geologist, a student of fossils, of features of the land, of animal and plant life, and having been engaged in researches in national parks and forests, I gravitated toward study of certain of the problems expressed through the most striking natural features that we know in America. In the course of this work I have been led more and more to consider the significance of the inspirational aspect of the influence of these particular phenomena.

Ultimately, I have come to consider the significance of the inspirational aspect of education in national parks with relation to the inspirational aspect of teaching in the schoolroom. The principles are the same in both. I have stood firmly for the idea that those things which have become stereotyped through centuries of organization in education should be subjected to careful examination before they are allowed to come into use in the national parks.

When some of my friends say to me, "The proper way to proceed is to have models and diagrams and charts, with which you first instruct the visitor and then permit him to go out and see the thing you have been describing and interpreting," I reply that thirty years of teaching indicated to me that the quicker I led the student to the thing itself, and then disappeared from the picture, the larger the percentage of result.

It was a very hard experience for me to discover that I was relatively a very unimportant element in the process; that if I could lead the student to the great natural feature—whether it was seen through the microscope or through the telescope, or whether it was merely a wide angle view of nature in the front yard—and let the student face the thing where he could see in some measure what it meant, where he could have the joy of personal discovery, there was the largest chance that he would come to the point of view that I wished to have him take.

It may not prove true that by this process the student would pass all types of examinations that may be set. It may be that, by memorizing rules and lists of names, he could obtain a higher mark. But with that system of examination which has to do with the development of his interest and his thinking, I find that, when he makes the discoveries himself and has the stimulus of interest from having found something previously unknown, he comes nearest to doing really fundamental thinking.

Last summer I visited fourteen parks and monuments and in each attempted to find what great things it represented. What are the great features in nature that parks are supposed to show; what are the lessons that they are assumed to teach? I came to the conclusion that even for this simple question there is great difficulty in securing an unequivocal answer.

I found that the visitors to the parks asked what might be called the natural questions relative to the greater things. That commonly they not only asked, "What is this, and how did it come to be here?", but they suggested that the situation had not always been as it is now, and that there had been a process of development leading to the present situation. Something had been pushed up, or something had been cut out. They were impressed, in the first instance, by the magnitude of the spectacle, by the height and depth and bulk. And that impression of bigness seemed to open up the sutures of their minds so that there developed an exceptional possibility for permanent intellectual and spiritual growth. In nearly every instance they asked questions which went much beyond their previous experience. Commonly the question was one which carried us quickly beyond the range of knowledge of all who had studied the subject. In the presence of a great natural feature which gave them a broadened vision of nature they were conscious of being lifted out of the commonplace, and of sensing the existence of still greater regions of knowledge beyond. At that point in the questioning of many the basic elements of what constitute science and philosophy and religion tended to be expressed together.

The influence of these contacts upon the average person is sometimes called "inspiration." Far be it from me to attempt to define that term. All I mean is that the mind is opened; that inquiry reaches out in a new way; and that the result is a new viewpoint, which not only is a point of view but is an attitude of the mind which leaves it forever inquiring in that particular field.

A person who stands at Glacier Point, or at the foot of the great east cliff in Glacier Park, or at the edge of the Grand Canyon, has his mind opened by the inspirational process and goes out to inquire. Even if a part of the answer is never found he never ceases to ask questions.

A study of what happens in the parks makes me ask how far we can go toward applying in the schoolroom what we learn in the parks. I am not at all sure but that the magnitude of the opportunity to study this process in the national parks, where it is all on a great scale and the mind is open relatively wide, is an opportunity which may tell us much about what takes place in the human mind wherever or whenever great spectacles, things of great interest in nature or in human affairs, are opened to us, whether they be presented through a great crevice in the face of the earth as at Grand Canyon, or whether they be made visible to us by the influence of a mind that with unusual power of illumination takes a clod or a fragment of a leaf, or a piece of a flower, or a part of a worm, and so illuminates it to the student that his mind opens and he sees and begins to inquire.

I have answered no questions. I wish only to ask assistance in attempting to answer those which I have asked.

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The Improvement of Modern Language Teaching[1]

IT IS doubtful if there is any subject on the college curriculum which is more disappointing in its results to college administrators and to the general public than the foreign languages. It is perhaps the subject which can be tested most widely and accurately in its practical application and which shows defects of instruction in most glaring colors in the post graduation years. The college graduate may never miss his geometry or history or English literature, but he usually nourishes a feeling of resentment that he cannot order a dinner in French or read a German newspaper or otherwise apply his foreign language studies to the problems and emergencies of real life. Aside from the practical value of these subjects, society has made ability in modern languages a badge of culture and the alumnus who recalls his classroom efforts with Fraser and Squair or Joynes-Meissner, or perhaps Ollendorff, if he belongs to that generation, is humiliated not to be able to wear the badge. In common with scholars and administrators everywhere; he asks, with more and more insistence, why?

Certainly there is no subject on which the dead hand of tradition lies so heavily as on foreign language teaching. The Renaissance took away Latin as a universally understood language of scholarship and brought the curse of the Tower of Babel on the intellectual world. Unfortunately, also, it brought, with the revival of philology from its thousand years of sleep, two attitudes which have worked directly against the removal of the Babel curse: a passion for formal grammar and an enthusiasm for the historical method of language study. Even the nineteenth and twentieth centuries have not succeeded in making the approach to foreign language study generally a practical-experimental one.

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[1] Report on the Modern Foreign Language Study presented to the American Council on Education, May 4, 1929.

The first answer which probably occurs to everyone who seeks to explain the unsatisfactory results of the teaching of foreign languages is that the teacher of French or German or Spanish does not know what he is trying to do. The teacher of arithmetic or algebra is pretty clear as to the functions which he wants to develop, but a glance into a few of even the most recent books on method in foreign language teaching shows that there is far from general agreement as to what abilities are to be trained.[2] Under such circumstances the development of a generally acceptable method and the achievement of useful results have been made very difficult.

We are astonished when we find that psychology has made such small and ineffective beginings in sounding out the processes of language learning. In the twenty-nine years since Wundt applied psychological principles to some of the general problems of language on a wide scale, progress in the analyses of the processes of language learning has been very slow. Little is known regarding the growth of oral vocabulary or the reason for individual differences in the formation of foreign sounds or the effect of discontinuance in language practice. Expert studies in reading, like those carried on by Judd and Buswell at the University of Chicago, have just begun to furnish definite data respecting the speed and span and accuracy of perception at various stages in learning to read.[3] Nothing definite is known regarding the relationship between oral practice and silent reading in learning to read or of the influence of age on the learning process or of the correlation of the various abilities involved in reading with comprehension. The difficulty lies, no doubt, in the highly complex characteristics of the language learning processes, a complexity which has been emphasized by recent experiments with prognosis tests in foreign languages.[4] It is certain that the psychologists have still a long way to go before many of these questions will have reached a solution.

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[2] Cf. for instance two well-known works recently published in England: E. C. Kittson: *Theory and Practice of Language Teaching with Special Reference to French and German* (Oxford Univ. Press, 1918), and Atkins & Hutton: *The Teaching of Modern Foreign Languages in School and University* (London: Arnold, 1920). The former defends the oral use of the foreign language as the prime objective; the latter rests the claims and organization of modern language teaching on ultimate, cultural objectives. A similar diversity of approach is to be found in German, French, and American works on method.

[3] *Silent Reading, A study of the Various Types.* University of Chicago Press, 1922. Cf. also G. T. Buswell: *A Laboratory Study of the Reading of Modern Foreign Languages.* Vol. II, "Publications of the American and Canadian Committees on Modern Languages," The Macmillan Co., 1927.

For practical purposes, however, the national inquiry recently concluded under the auspices of the American Council on Education has shown that greatly improved results can be attained in modern language teaching if certain paths are followed. There are three ways in which this can be brought about. The first is so trite and obvious that it scarcely needs to be repeated: by the fixing of a definite objective. We do not hear so much about objectives as we did a few years ago, but that probably means that we have gotten away from the merely dialectical and argumentative stage to the practical application. In the case of modern languages the question is very simple. Whatever confusion prevails regarding the value for the American young man and young woman of the various ultimate goals to be attained through foreign language study, there is universal agreement that the ability to read is the first goal. However, many other uses French and German may have for the college student, the reading of these languages is the skill which will ever be useful to most. A better command of English, a finer appreciation of language and its laws, a knowledge of foreign culture and a sympathy with foreign peoples, a quickened social sense and a wider tolerance of the pecularities of other nations; all of these are desirable ultimate aims, but whether they are more easily attained through the study of foreign languages than through the study of English or history or philosophy remains to be proved. On the other hand, the ability to read any one of the European languages with ease and enjoyment opens a path on which all of these values and many others can be reached most completely and readily if they are to be reached by foreign language study at all.

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[4] Cf. *Prognosis Tests in the Modern Foreign Languages.* Vol. XIV, "Publications of the American and Canadian Committees on Modern Languages." *In press.*

The first step in the improvement of modern language teaching, then, is a concentration on the reading objective. The concentration becomes all the more important when we recall how short a time the American college curriculum assigns for foreign language study. This is for nearly 60 per cent of all the French students in the colleges a maximum of two years; for practically one-half of the Spanish and German students it is one year.[5] This calls for experimentation with rapid-fire methods of acquiring reading ability and promising experiments in this direction have already been made at the University of Iowa and the University of Chicago, and especially in India, where at Dacca College in Bengal astounding results have been attained in speeding up the process of teaching Bengali boys to read English.[6] All of these experiments have certain common features: the elimination of all formal grammar except an iron ration of fundamentals which have been shown by experiment as necessary for understanding a text; the careful gradation of vocabulary material which is arranged on a basis of the commonest words, not selected by subjective judgment but based on frequency counts like Thorndike's *English Word List*, or those published for Spanish, German, and French by the Modern Foreign Language Study.[7] Hand in hand with this careful selection of word material, progressively introduced, goes the effort to test pupils for understanding what they have read without translating it into the mother tongue and a persistent effort to keep before the student's mind the objective which is sought. Furthermore, the constant registration of the learner's progress by means of standardized tests holds in his view his present stage of efficiency and the goal toward which he is traveling.

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[5] Cf. C. A. Wheeler and others: *Enrollment in the Foreign Languages in Secondary Schools and Colleges of the United States*, Vol. IV, "Publications of the American and Canadian Committees on Modern Languages," p. 423. In the public secondary schools, the period of study of the foreign languages is even shorter. Cf. Wheeler, *op. cit.*, p. 353.

[6] By Principal Michael West, reported in a highly important study. *Bilingualism.* Bureau of Education, Occasional Report No. 13, Calcutta, 1926.

[7] Edward F. Hauch: *German Idiom List*, Vol. X (1929); Hayward Keniston: *Spanish Idiom List*, Vol. XI (1929); F. D. Cheydleur: *French Idiom List*, Vol. XVI, *In Press.* "Publications of the American and Canadian Committees on Modern Languages." The Macmillan Co.

The second path to success is by the regular use of standardized foreign language tests. This Council is strongly committed to the development and use of standardized tests, and it is hardly necessary to repeat here any of the arguments for these objective instruments of measuring achievement. But it may be worth while to point out some of the reasons why they are especially important for foreign language work. In distinction from certain other curriculum subjects, like the mathematical sciences and the natural sciences, foreign language study calls for the development of a highly complex bundle of capacities; and although it is not necessary to test for all, nevertheless achievement cannot be measured except by a group of tests. The tests which have been copyrighted for the American Council by the Modern Foreign Language Study[8] make it possible to measure, against nation-wide norms, achievement in vocabulary, grammar, reading and writing for French, German, and Spanish, the three modern languages of major interest to the schools and colleges. At last we have some standards to go by and are no longer wandering in the woods where teachers' marks and unstandardized examinations, subjectively made and subjectively graded, keep the student in a state of suspicion and resentment and generate in the mind of the conscientious teacher a condition of uncertainty and remorse. For certainly anyone who can claim to measure with accuracy year by year the achievement of his students in the four fields mentioned by the old hit-or-miss methods of testing and marking must either be a victim of a personal superiority complex or else have altogether lost perspective regarding the fallacies of human nature.

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[8] Published by the World Book Company, Yonkers-on-Hudson.

The ability to measure one class with the same yard stick that is employed for other classes of shorter or longer periods of training, or both, is the greatest corrective for defective class organization, and it may be said that the worst evils of the well nigh criminal misplacement of students in foreign language classes which Professor Wood[9] and Professor Henmon[10] have shown to exist in some of the best schools of the country would disappear if a persistent administration of standardized tests over a series of terms should keep this distorted picture before teachers and administrative officers.

Aside from their value for organization purposes, these tests have a clinical importance for modern language teachers which is abundantly shown by the report of Professor Henmon and that to be issued soon by Professor Coleman.[11] They show wide differences in the weight of emphasis placed on the different capacities in different schools, variations that are due to no conscious differences of ultimate social objectives, for in most cases the modern language teacher is anything but clear as to these, but are due to the varying theories, habits and methods of individual teachers or to following of the path of tradition and of least resistance by examining bureaux like the College Entrance Examination Board. Although the American Council tests have been available for not quite two years, they have already found wide distribution, and signs indicate that this is only a beginning. In spite of the conservatism that belongs to the teaching profession, no member of it who looks on his duty as anything more than an excuse for drawing his salary can help appreciating a device that enables him to put his finger on the weaknesses of his students and to measure with some accuracy the increase or decrease in capacity which accompanies the methods which he employs. Of course these achievement tests are not perfect. Far from it! No reasonable man expects that they can be at the present stage of development. But steps have been taken to revise and add to them as experience and criticism show the way.[12]

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[9] *New York Experiments with New-Type Modern Language Tests.* Vol. I, "Publications of the American and Canadian Committees on Modern Languages." The Macmillan Co., 1927.

[10] *Achievement Tests in the Modern Foreign Languages.* Vol. V, "Publications of the American and Canadian Committees on Modern Languages." The Macmillan Co., 1929.

[11] *The Teaching of the Modern Foreign Languages in the United States.* Vol. XII, "Publications of the American and Canadian Committees on Modern Languages." The Macmillan Co. *In Press.*

The third road by which an improvement in foreign language teaching will come is through an intensive study of curriculum material and a reconstruction of the curriculum on a basis determined, not by scholastic tradition or the judgment of any textbook maker or groups of textbook makers, but by an objective investigation of the habits of the language to be taught. There must be modifications, of course, due to the conditions of teaching a language in a country of other speech, but in the main no one can deny that the words or idioms of French or German or Spanish ought to be learned in the same sequence of frequency as that in which they appear in the language itself. The only reason for learning a word or locution is its usefulness, and usefulness is determined by use. It is, or ought to be, obvious that the most useful expressions are those that occur with the greatest frequency and that the order in which we should learn these elements of speech should follow the order in which opportunity will arise to use them.[13] That is common sense, but it is not pedagogic tradition, which in great part still follows a scholastic and arbitrary usage in its choice of language materials. All those who have studied Latin will still find running about in their heads somewhere a list of Latin nouns, most of them extremely rare, whose only title to immortality and only excuse for tormenting fifty generations of school boys is the fact that they are exceptions to a rule which is obeyed by practically all the useful words in the language.

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[12] At the request of the Committee on Direction and Control of the Modern Foreign Language Study at its final meeting in Toronto, September 15-17, 1927, the American Council on Education in May last appointed a Committee on Modern Language Teaching to carry on the work of experimentation and research, begun by the American and Canadian Committees. This Committee consists of the following: Robert Herndon Fife, Chairman; J. P. Wickersham Crawford, Vice-Chairman; Algernon Coleman, Secretary; V. A. C. Henmon, H. E. Ford, and W. A. R. Kerr. It has organized further inquiry into certain important problems which the previous investigation opened up, including prognosis testing, methods of speeding up the acquisition of reading ability in French, etc. It will also provide for adding to the American Council foreign language tests alternative forms as they may be required and for constructing tests for capacities, such as aural understanding, which are not yet represented on the American Council list. The Committee, which has for the present its headquarters at Columbia University, is seeking to effect an organization which may guide experiment and research in modern language teaching over a sufficient period of years to attack with success some of the major problems of content and method that have waited so long for a solution and which must be dealt with if the American colleges and secondary schools are to make the foreign languages worth while as members of the curriculum for any large group of their students.

Ever since Edward Thorndike led the way with a list of English words dependent on frequency of use, foreign language students have sought to apply the same principle to the words and idiomatic and grammatical phenomena of the modern foreign languages. That has now been done on a broad scale by the Modern Foreign Language Study and the Canadian Committee on Modern Languages, and at least in French, German and Spanish bases have been created in frequency lists for the placement of language material before the pupil in a practical sequence. This, of course, is only a beginning, but it is a foundation on which courses can be built which will have what Principal West calls "an immediate surrender value." This will be assured if texts are constructed which introduce new words and phrases and idiomatic constructions in accordance with their frequency in practical language use. Progress will naturally be slow, but textbooks are already appearing which have adopted this principle, and it is a safe prediction that in the course of a few years no textbook will appear for the earlier levels of foreign language study which does not recognize it.

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[13] It is with the purpose of providing bases for the selection and arrangement of curriculum material that the frequency studies in French, German and Spanish vocabularies were undertaken, mentioned above. These have been supplemented by similar cooperative studies of idiom frequency resulting in the lists published by the American and Canadian Committees. Cf. E. F. Hauch, H. Keniston and C. D. Cheydleur, *op. cit.*

The improvement of modern language teaching will naturally be a slow going process, but the demands of the American college and school curriculum will not permit too long delay. Indeed the handwriting is already on the wall which declares that, unless foreign language teaching can be adapted to the demands of the American life, these subjects will, at least in the more progressive states and institutions, soon go to join formal logic and ethics and the evidences of Christianity and Greek and Latin as something adapted only for certain pre-professional groups or for the scholastically minded student. The present age is as insistent as any one that has preceded it that education should orient itself toward the service of mankind, and this insistence is the greater in this country, which is now opening the doors of higher education to every qualified student. It is all the more gratifying, therefore, that paths have been cleared by which instruction in the foreign languages may be able to prove its fitness for an enduring place on the American school and college program.

ROBERT HERNDON FIFE,
Columbia University.

Relating Liberal Arts and Efficient Living[1]

WHEN I begin to speak on this subject from the point of view of women's colleges, and indeed specifically in terms of an experiment at my own college, I am aware of the pressures of a variety of superstitions.

A father recently was somewhat staggered when his daughter was failed out of college, and he said, "I made a great mistake. I thought that she could go to college and get some pleasant culture. I advised her to major in English because it would be easy. Apparently it isn't so in your college." I think that he represents an attitude of mind which is all too general not only toward women's colleges but toward all liberal colleges. It is something that we have to meet constantly. Our students themselves are infected with it. They are in the habit of liking to take English because it gives one material for pleasant social conversation. Last year the student was all too typical who said to me, when I was challenging her to do some thinking of her own about Shelley, "Well, I don't know what to write about. I don't know what to think about Shelley."

I said, "What did he impress you with?"

She said, "Nothing much."

I asked, "Why did you take this course anyway? What did you want to get out of it?"

She answered, "Everybody is supposed to have read Shelley, and so I thought I ought to."

Even if they do want an education which is real, even if they are trying to work out a life with some deeper graciousness of thought and feeling, our girls are apt to be met by shrugs from the men. One of them recently reported with half humorous, half rueful heat a dinner where the men had treated her like a strange show-dog and had begun with dampening irony, "We have college girls with us tonight. I suppose we'll have to carry on high-brow conversation." Trivial in a way, the incident represents a serious problem that a woman's college has to meet if it wants to be honest about facing the present world of America.

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[1] Address before the Annual Meeting of the American Council on Education, Washington, May 4, 1929.

But when, on the other hand, we try to re-define our education in terms of the relationship between women's skill and knowledge, if I may borrow Dr. Mann's words, we find the press lifting up its voice in laughter and misleading statements that we have gone to teaching young women the elements of cooking, that we are giving in to patriarchal values and succumbing to Main Street's desire for the simply practical.

The superstitions of these, who scorn even asking whether there are skills important for women and whether we can use them for a liberal education, match those of the first group of people who believe in magic spells which will pleasantly transform their daughters from the outside just about as much as a new gown. Unhappily, inside the college itself we also have to reckon with superstition.

We have a vague sanctity called "the Truth." I think it is what Dr. Mann meant this morning when he was dismissing the old kind of knowledge. It is a kind of vague, holy thing that you teach the students before you begin to teach them to look at facts in relation to their lives. Secondly, ironically enough, we have a superstition of tolerance. For our tolerance too often becomes irresponsibility, and under its aegis we somehow or other can dodge the need to carry our thinking through to a stage of effective action or, indeed, of effective being.

Before we can go far in relating liberal arts to practical living in women's colleges, we must think our way through these superstitions. For the result of them is that we too often turn out graduates who have no more idea what the American life of today is like than they would have if they had never been to college at all, who have a vague sense of having been taken up to some heights where there are beautiful ideals and something called Art and Philosophy, but who are in the end too helpless when they are confronted with the insecurities of modern economic life, with the drive for money which the writers of *Middletown* find so central in our life, with their individual incapacities to do anything about the organized pleasures which beset them on every side and beset their children, when all they can do is to say, "I know my twelve-year-old child does not need evening dresses and should not be going to hotels to dinners and dances, but what can I do? All the others do it." When we go round and round in circles that way, it is not a light thing that we are confronted with these particular superstitions. They are the very ones most successfully to divorce education and the main stream of the nation's life.

In an attempt to find a way through them, Vassar College has recently been searching for a new definition of what we need to do and what a college for women can do. We needed to start with a "Record of Performance"—to quote the American Council; we have not called it that, but it is what we mean. But when we come to make a record of performance of women, we are immediately challenged by the questions, "What are they to perform? What are we to make a record of?" Now that we are in the machine age, we must realize that women are in it too.

How confusing this is can be shown by one simple illustration like the electric washing-machine. You now read in every magazine marvellous advertisements of advice, "Give Mother a Washing Machine for Christmas—Something That She Will Appreciate Forever." And the advertisements are all clothed in the terms of progress. "Have the latest thing. Be up-to-date." The question is, Is it being up-to-date? In one way it is—it is using an electrical implement. In another it is perhaps relapsing into the old premachine age and taking an industry back into the home which ought properly to go out of it. We have been thoroughly confused about what the home is in the midst of the forces which every speaker emphasized this morning and which stagger everybody. We cannot go back to the age of handcraft for women any more than we can go back to it for men. I noticed last October in the *New York Times* the first advertisement I ever saw in a periodical boldly shouting, "Women's Work Is Outside the Home." Of course the rest was, "Have Your Second Car."

The question then is, if you are to define performance: Is a woman's performance to be in the factory outside? Is she to follow her tasks outside the four walls of the home or is her problem one of deciding on the values which shall occupy leisure? Our colleges, like our American civilization, have no very clear answer. It is at this point that we have any number of conflicts in our educational discussions within the college halls.

But even within the household, if we grant that our definition of performance must be in terms of the four walls of the household, we still have to consider the effects of machine industry. New skills are involved—a woman does not so much need to know how to cook certain things as where to get them; she no longer makes the textiles but she needs to know whether she is buying good ones or not. The increasing complication of buying wisely needs no underlining, for the swiftness of displacing workers by new machines is equalled by the swiftness of new products and new sales' appeals. When we remember that the women spend the larger part of the nation's income, we can see that our problem of defining their performance must be largely in terms of how the wealth produced by the machines shall be consumed. In other words, to define values, we must have a contemporary discriminating mind. As Mr. Barnes said this morning, educators need most to train "the examining minds which can see changes coming and avoid disaster."

It is this which we are trying to do at Vassar. But we have to think not only of the woman after she leaves the college—that is to say, of the ultimate end of our education—but of what is needed by the American girl of the leisure middle class in America during the four years while she is in college. We have to define what it is suitable to expect of adolescence, how we can make a proper environment for those girls which will at once be satisfying to them during the four years they live in it and a transition from the shelter of them to life outside.

Sensitive to new national pressures and to what psychology has been teaching about interest, attention and accomplishment, we have reorganized our curriculum to give more freedom to individual needs and to develop the higher skill possible with more concentration in a chosen field; we have introduced on the campus an extension of certain practical activities designed not only to give us answers to questions, but to help us get facts and indeed even to put our questions more clearly. Therefore we have a nursery school where our girls may, in studying their psychology, see children in action and not learn entirely from the laboratory and textbooks. We have it that we may ourselves see what children are and ourselves ask: Where do behavior patterns begin? Where do motives begin?

We are expanding our courses in hygiene and nutrition. We now require of all freshmen a more extensive course in hygiene than ever before. Next year it will be organized to show the girls the working of our whole plant—our model stock farm and the methods of securing clean milk, the organization of the kitchens for cleanliness, our provisions for balanced diet, our water supply and sewage disposal plant. Advanced students will begin to study more intricate problems of diets and costs, of the relation of weights to health, of causes of fatigue and what is a reasonable working day for a girl of the college age within the college community. It is our hope that we can develop our work in physical training so that it will have a place in our whole life more nearly approaching the old Greek ideal.

One might go through the departments of the college and list similar tendencies in each one—the experimental theater, the studies in new religious attitudes, the history of the family, contemporary problems in American culture. This is a new course which studies various nationalities as they take their places in our life and influence our thought. A course in the contemporary press is designed to meet the new illiteracies which threaten us. As fast as we teach our children to read, high-power advertisers bombard us with their beautifully skilled words until our new desires are mostly out of our own control. If we are to live at all in such an age, our women who do the buying have to be able to see through the advertisements and the newspaper write-ups. As the newspapers become less and less objective reports by objective reporters and more and more reports by public relations counsels we must develop more and more skill in penetrating beyond the words to the reality. Vassar's course is designed to train the girls in the habit of intelligent use of the press.

It is designed further to relate various layers of public opinion and the stereotypes common in all the magazines to the literature of the first rank to which the students are exposed in most of their courses, the whole attempt being to bridge the gap between the rather more remote discussions of abstract philosophy, of theoretical science, and of art, and the general opinion of the mass of the American people. It aims, in other words, to make our students word-skilled, if I may again borrow Dr. Mann's phrase and apply it to this new field which seems to me just as important as any skill in an industry. Indeed it is part of the skill that women need on their jobs if they are to conduct their homes decently.

But all this practical effort must be related to the other problem which Mr. Barnes implied this morning when he said that in the future the question is going to be not so much how we can produce what we need as how we shall use our leisure. Although at Vassar we have tried to introduce these new plans into the curriculum in order to touch the activities of women directly and to re-define knowledge in terms of those activities, we believe that women will have the most far-reaching influence in deciding on values which shall occupy leisure.

We still do believe that the liberal arts and the natural sciences regarded in the imaginative fashion that Dr. Merriam has just now described to you are the backbone of a liberal college, and justly so. But we do not mean to leave them in the realm of the irresponsible, vague truth which has been the object of past academic generations. We believe that the introduction of these practical courses and activities on the campus will challenge us to see ourselves in relation to the new currents of art, to the new imaginative appeals of science, and that perhaps out of the interplay of these various factors (the liberal arts themselves, the practical activities and the whole organization of a community where a thousand girls and about two hundred members of the faculty are living together) our women can grow to wholeness of being and can contribute not only to efficiency of living but to some farther vision which will be expressed in terms of a new and more vital American art, and a civilization ultimately distinguished not only for practical excellence but for appreciation of varied and subtle human values. By a more searching understanding of our students and by opening new ways for them to understand themselves and the principles involved in elementary skills which they must use, we must train them to illumine the new commonplaces of daily living, to use their full emotions, to shape them and to balance them in an equilibrium of forces not oversimplified by elimination but accepted in their variety and complexity. Our students and we must attain the *katharsis* of perfectly used potentialities and of realization of the universal in the particular.

We recognize perfectly that there are quantities of difficulties. The psychologists have told us how to teach right and wrong—at least we were told this morning that they can tell us. But it is not clear what shall be the measure of what is right and wrong. We are not clear about the proportions between our old theories and our new details or just how we shall organize them within the college. We are not clear about what material is relevant and what is irrelevant. To define the relation between college students' right use of the automobile and Plato's *Republic* taxes the wisdom of the most farsighted modernist. In dealing with modern practical materials like newspapers or nursery schools, it is appallingly easy to be superficial because we do not know very much after all. We know, on the other hand, that we have the "old guard" and that we have plenty of the old pedantries; that those pedantries are bound up with the "pigeon-holing" type of mind which upholds the sanctities of specialization and sees its students as little minds into which you can pour a certain subject and then a certain other subject and congratulates itself on turning them out educated.

We are confronted, too, with students who come from schools where they have been trained to be tricksters with books and are not conscious either of the world around them or indeed of the meaning that lies in the books. They are very, very awkward the moment we challenge them with the new kinds of technique involved in any of this practical work or any of the attempt to carry the liberal arts through to an effective plane.

An interesting illustration of this came up recently. The President has a course for all the freshmen in which he outlines the different branches of knowledge offered by the college. Every freshman was required to study four departments in the college and write a paper on them. She was to get her knowledge from the catalog and from professors who give the courses. She was not to get her information in the library. In fact she could not. I used the assignment as part of my own freshman work in English. Their papers were appallingly dull. I tried to find out why they were so much poorer than what I knew the girls could do. Here was a problem which involved their four years of life in the college. If they understood what the college has to offer, if they thought it in terms of their own needs and desires, if they caught the adventure of it, they could map out a course of study which would be of some satisfaction to them for the next four years. It was, in other words, a problem fundamental in their lives and a top group did badly with it. One of them said, "Well, you know it doesn't really interest me to do this kind of thing. I would much rather do some work about Greek architecture. You look at the pictures and read some interesting books and it is perfectly fascinating. It appeals to your imagination. I really found this dull, reading the catalog about the college."

"But did you not see that you had raw materials to use your own imagination on instead of just soaring on somebody else's which had already interpreted the raw materials for you?"

"I never thought of it," she answered. Yet the greatest pains had been taken by the several people working with the group to convey exactly this possibility.

Another student said, "Well, I had decided to major in child study anyway and they told me to go and look up physics and chemistry. I don't care anything about physics and chemistry. How could I be interested?"

These two attitudes could be duplicated over and over again. The moment that our students are confronted with the raw materials, they are inclined to sit down and say either that they are not interested or "I can't do anything about them," and as for disinterested curiosity, it has too often been trained out of them by the combined efficiency of the College Board examinations and the sensationalism of modern life. Before we can go very far, I think that we shall have to do something about re-defining our entrance requirements. I think that we shall have to do something much more fundamental than we have done in connection with the elementary and secondary schools.

Relating liberal arts to practical living in an undergraduate women's college is obviously, then, in a problematical stage. In order that we may shed some light on it from still another angle and carry our educational effectiveness another step farther, we have a summer institute which has nothing to do directly with the winter college but which uses our plant, and some members of the faculty, and which is concerned with women's education in professional terms. It is called by the somewhat elaborate if exact phrase, "Summer Institute of Euthenics." To it we bring college graduates, both men and women, with their children. The children from two to four go to the nursery school and those from five to nine to a "progressive school." The parents hear lectures on mental hygiene, on the family, on various religious problems, on problems of schools in changing civilization and, some years, on economic consumption. They discuss their children with the teachers who are working with them in the two schools, and the whole campus becomes a curiously integrated laboratory in which parents and teachers try to find out what it is we need to know about bringing up the next generation.

We have not gone very far. This institute is only three or four years old. But in conception it is significant because of its grouping and its professional nature. It is unique in getting the men to come too and in using the growing realization that parenthood and the new values of civilization must be worked out in partnership. We hope that ideas which emerge from the summer experiment will illumine our winter experiments.

We know that our efforts are tentative and that our formulations may even seem shadowy. But we are convinced that we are moving toward sound new definitions.

HELEN DRUSILLA LOCKWOOD,
Vassar College.

Problems of University Education in Post-War Europe[1]

I

A LECTURE tour through the colleges and universities of the United States gives a European university teacher exceptional opportunities for comparison between the academic systems of the two continents. To his surprise, he soon observes a peculiar phenomenon: each of the two systems seems to be discovering in the other certain features of excellence which it does not possess in itself, and to be striving beyond its traditional orbit to attain them. Thus, the American universities—and similarly, the old English ones, to which they are akin in essence—seem determined to introduce a more intellectual tone, and more of the element of training for research, into their educational activities, while on the other hand the Continental European universities, which (like the Scottish ones) had always predominantly been seminaries of intellectual instruction for specialists, are eager to extend their work more and more into the domain of moral education and physical culture as well.

How this tendency towards mutual approximation is to be interpreted, depends, of course, largely on the temperament of the observer. He may take the melancholy view expressed in the Russian proverb: "Happiness is where we are not," and conceive of these longings as part of humanity's age-old desire for the unaccustomed and the strange as a refuge from the oppression of stale and weary daily reality. Or he may draw the more comforting conclusion that both continents are struggling towards an ideal unity of world culture, combined of various elements of national experience.

Whatever be the right view of those present-day tendencies, there can be no doubt that they spring in both continents out of the same basic social fact. Both America and Europe are confronted by unprecedentedly large and urgent problems of *mass education.* Universities, whether of the English and American, or of the Scottish and Continental European type, had, after all, been always institutions essentially aristocratic in character: their task had been to produce an *élite*, whether intellectual or social. The evolution of democracy in the nineteenth century changed this and turned them into training places for that large body of *intelligentsia* which forms a considerable sector of the middle class in modern communities. The professional *intelligentsia* is generally admitted to be a useful and important section of society, but it is not—at least not in some of the leading democracies of today—considered as a privileged or ruling class. Other strata of the community are thought functionally no less important, and some have greater political power or social authority.

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[1] Read at the annual meeting of the Modern Language Association of America, Toronto, December 28, 1928.

To realise what a change the transition from an aristocratic to a democratic social mission has meant for the character of universities, it is sufficient to compare such academic bodies of the traditional type as Oxford and Cambridge with such emphatically modern ones as the great University of London—now the largest in the British Empire; or, on American ground, Harvard and Yale with Columbia and Chicago.

II

It may be observed that Central and Eastern European developments have been particularly expressive of the new tendencies. The emancipation from serfdom of a numerous and quickly multiplying peasantry was accomplished in most of the Eastern European countries in the course of the nineteenth century. Its result in the next generations was the growth of a new, large, peasant-born educated class. An outlet for this was provided by the huge bureaucratic machinery of modern states, with their enormously enlarged fields of social activities. Such was, roughly, the state of things of which the old Austro-Hungarian Empire was a typical instance. An additional incitement for the increase of the new university-trained class of peasant origin was the plentiful creation of new states out of the wreckage of the World War: an abundance of new government posts was established, and many new universities supplied the candidates for them.[2] By degrees, as the framework of the new state machinery is filling up with human material, the growth of the student bodies in the universities begins to outstrip the necessities of society: some of the states, especially the smaller ones, like Latvia and Estonia, begin to suffer from a plethora of university graduates, and must employ them in capacities for which no higher education is really required.

In America, the rush of the masses towards academic education has lately been quite as marked as in Europe, especially since the war, and the difference (one to America's material advantage, of course) only is that the still growing volume of American business and industry manages to absorb all these crowds of graduates, often quite regardless of the special accomplishments they have acquired. But the fundamental social fact is exactly the same in both cases: the universities have had to open their doors to larger numbers than ever, and no amount of effort on the part of their administrators and teachers seems likely to close them more tightly again in the near future.

The material consequences of this unprecedented influx have been bad enough even in prosperous America: some universities, like Chicago, have recently had to meet an urgent housing problem on a large scale, and we see the swarming student population of the larger universities taking all sorts of employment to tide them over their academic years—from dish-washing (recently made the subject of a Chicago master's thesis)[3] to the mowing of the grass on the college slopes.

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[2] The writer's own country—Poland—may supply illustrative figures. There were only two universities and one engineering college left to the Poles before the war, all of them in Austrian Poland. The re-united territories of Austrian, Prussian, and Russian Poland, which constitute the reborn Polish Republic, have twelve institutions of university rank with a total student population of 40,000, of whom 10,000 are women. And yet Poland's oldest university, Cracow, in spite of that apparent relief, now has twice the enrolment of pre-war times—over 6,000 in place of 3,000.

Things, of course, have been much worse in Europe, with its post-war economic depression. The housing problem there was universal and acute, and the larger universities being all situated in great cities, it was bound to affect university students with special keenness. Tuberculosis, largely due to bad housing and nourishment, raged among them, and emergency measures had to be taken by most states to provide dormitories and cheap dining-rooms. When new dormitories began to rise, and larger numbers of students came to live in common than had ever done so before the war, it soon became apparent that in this case, as sometimes happens, a virtue would be born out of necessity. Where formerly the bulk of the students had lived scattered in more or less miserable private quarters all over the town, now greater and greater numbers of them live in dormitories together and thereby acquire more of an *esprit de corps:* something like the English "college spirit" is developing in those new student homes, especially in Central and Eastern Europe. But they are undeniably mass institutions, crowded with an abundance of very heterogeneous student material, which it is obviously difficult to fuse into a morally united whole. Therefore, adherents of a different form of organisation have a strong case.

The Central European universities possess a kind of student societies corresponding to the American "fraternities." Modelled on the old German *Burschenschaften,* that historical outcome of Germany's struggles for freedom and unity a hundred years ago, those student clubs—called *corporations* in the non-German countries—are not indeed rich enough to own living quarters for their members like the American fraternities; they are only in possession of club premises for meetings, but, having generally a membership strictly limited in numbers, they are able to enforce very close adhesion to the communal life of the institution and rigorous loyalty to its social and moral standards. Those standards, it is claimed, can be kept high in such small and closely knit groups; but it must be admitted that in many cases social snobbery or political fanaticism, rather than moral distinction, become the hall-mark of these associations, and the insistence on their select character produces an undesirable class antagonism between them and the rank and file of non-fraternity students. Here, as in other matters, certain symptoms of the great world-wide crisis of democracy in our days are necessarily repeated on the smaller stage of student affairs.

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[3] The University of Chicago, 154th convocation, March 19, 1929. Program, candidates for higher degrees, degree of master of arts, graduate school of arts and literature: Miss Nellie Maud Vedder, thesis: *A Time and Motion Comparison on Four Methods of Dishwashing.*

III

Besides the effect on problems of housing and of social organisation, the unprecedented influx of students into the universities of Continental Europe after the war has had an important effect also on *university education* itself. It necessitated nothing less than a revision of the meaning and character of the university. Continental European universities had traditionally combined the two functions of training professional men and educating research specialists. With the increasing invasion of crowds of average bread-seekers, it is becoming less and less practicable to fulfill both these aims together; a separation of the two functions will be necessary. Soviet Russia has accomplished it by establishing a separate research institute side by side with each university chair—a great undertaking, for which Russia's present intellectual resources are obviously inadequate.

In the Central European countries generally there have been no such thorough-going changes in university structure, but a tendency towards segregation has in some cases found expression by a change in the system of *degrees*. In place of the one and only degree of *doctor*, which, on the German model, used hitherto to be conferred in a number of countries round about Germany, now a degree of *master* has in some countries (e.g., Poland) been introduced as the degree for the rank and file of students. This degree, bringing the systems of those countries formally nearer to Western European and American academic arrangements, at the same time has the material value of carrying with it the official qualification to practice in the profession to which it corresponds, such as the law, or secondary school teaching, or medicine. The degree of doctor, on the other hand, is lifted to a higher plane, and is to be reserved for those who aspire to distinction in original research work.

This important change certainly meets the necessities of the new situation to some extent, but, like most other reforms, it is not without its disadvantages. It means for the mass of university students nothing less than the loss even of such scanty and brief contact as the old system gave them, for a few short years of their lives, with the world of creative activities of the human mind. It also has another serious side to it, affecting not the students but their teachers. It is *obviously not students only but professors also* who will in the future more definitely than hitherto be segregated into the rank and file and the select. Such segregation, in a way, has long been a fact, especially in America, with its enormous number and great variety of academic and semi-academic institutions. It was to some extent operative in Europe, as between greater and lesser universities. But its formal recognition is a matter of the future, and the dividing line will run between educators and those who will be freed from teaching duties to do creative work in research institutes. Such institutes, founded and endowed in America by enlightened rich men, have lately been growing more numerous in Europe as well; but here they are largely government creations and owe their existence to the economic needs of the community as a whole, especially of the newly organised states. The Masaryk Academy of Work in Prague, or the Chemical Research Institute in Warsaw, which owes its origin to the President of the Republic, Professor Moscicki (himself a distinguished chemist), may be referred to as examples. It is along the lines foreshadowed by such establishments that further development will probably travel towards the only possible solution of the dilemma between mass education and the active promotion of human knowledge by the chosen few.

R. DYBOSKI,
University of Cracow, Poland.

Tendencies of Modern Language Study in Europe After the War[1]

I

MODERN Philology, as a branch of academic study, had developed in the shadow of Classical Philology, from which it sprang, and had shared with it, throughout the nineteenth century, the fate of that extreme specialisation which, while productive of an unprecedented accumulation of knowledge, at the same time removed learning further and further from life and indeed threatened to dissociate knowledge from true wisdom.

However, in the very beginnings of our own twentieth century, a reaction against this state of things began to make itself felt in the very homes of academic learning themselves. It is one of the most vivid recollections of my own student years how, in 1902, when I came up from Cracow to Vienna for my second year in order to specialise in English, a teacher to whom I was to become greatly indebted—the late Professor Leon Kellner—said to me during our very first interview: "We have had professors of English in our universities who had mastered all the intricacies of Old and Middle English but could scarcely utter a word in Modern English. That won't do for these days. You must apply yourself unremittingly to Modern English, in order to get a good grounding in it, before you go on to anything else." Here the new note was sounded distinctly. I heard it again a few years later when, at a Congress of Germany's Modern Philologists, the late Wilhelm Vietor, ardently advocating the "direct method" of teaching modern languages in school, assured us that he never spoke German but always English in his seminar, and that he was determined to use English increasingly even for his lectures.

Since the war, the prospects of modern language teaching in Continental Europe have widened considerably, and the relations between the academic study of the subject and the practical necessities of life have become even more close. The established independence of countries like Czechoslovakia and Poland has freed their inhabitants from the compulsion to learn the language of a foreign ruler in elementary and secondary school—German in the case of the Czechs, German or Russian in the case of the Poles; political events have brought them into closer touch than ever with the Romance and the English-speaking nations. The lack of the former constraint has perhaps told unfavorably on general proficiency in a particular second language; but what was lost in that respect has been gained by the increased scope of language teaching and the enlarged horizon. Option between German, French, and occasionally English is now a regular feature of the school systems of these and other countries; the great shake-up given to the European world by the war and its consequences caused the need for real speaking mastery even of the more distant foreign languages to be felt more universally and more keenly, and the universities, in their methods of conducting modern language study, have to reckon with that general sentiment. The professors, in their seminars and at the examinations, lay more stress on actual command of the language, and the hitherto rather modest office of the *lector*, or practical teacher of the foreign language, has considerably risen in importance.

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[1] Read before the annual meeting of the Modern Language Association of America, Toronto, December 28, 1928.

II

The *lector*, it is sometimes claimed, must become a more respected and better-paid person, side by side with the professor, not only because practice in the language is now a more vital point in the curriculum than before but also because it is part of his duties to give the students encyclopaedic information on the manners, customs, and institutions of the foreign country whose language and literature they are studying; and a knowledge of these matters, again, is now considered more important than in the old nineteenth century days. This brings us to another great change which has come over our studies. That change is not in itself a recent affair either. Even in the later nineteenth century, the study of what were called the *realia* of Greek and Roman life began to loom large in classical courses, and Modern Philology, here once more, followed in the wake of Classical Philology. Again it was my privilege, in my own early post-graduate days, to hear the new policy emphatically announced by an authority: in 1908, at a *Neuphilologentag* in Munich, I heard Professor H. Schneegans say in an address to the plenary meeting, "We must be teachers not of *French* and *English* only, but of *France* and *England*." And here again the war has quickened a process which began before it. It is no doubt partly due to the war—as being a most violent break with the past, and a bankruptcy of many old traditions—that the post-war generation of students manifests such a marked contempt for what it calls "mere philology" generally, and particularly for the study of the more remote, medieval periods both of language and literature. The incredible could happen: in Germany, once the stronghold of medieval studies, the veteran Professor Brandl finds occasion to complain, in a preface to the post-war edition of his Middle English Reader, that "the young people of post-war time, in their struggles with the great problems of the day, have distinctly turned away from medieval studies."[2] And his experience is confirmed by that of university teachers all over Europe.

But the teachers themselves also yield to the increasing demand for "new wine in new vessels." It is obviously no longer an introduction into all the mysteries of sound-changes, literary influences, or textual criticism only which is called for at their hands, but a resolute interpretation of the totality of one nation's life to another, and a subordination of purely linguistic or literary studies to the task of making peoples understand each other better both as regards their general human kinship and their peculiar differences, which give civilisation the value of variety. Modern language study in these new forms must serve, and does serve, the ends of world peace as effectively as do other and more immediately practical forms of activity. We see the best intellects of trained specialists turn ambitiously towards the aims of such all-embracing presentation, and we see them producing—to quote two outstanding instances only—works of such monumental quality as Professor Wilhelm Dibelius' England, or Professor Andre Siegfried's *Les États Unis d'aujourdhui*. Of these two, only the first, indeed, is the work of a philologist and literary historian of the traditional type, who has now turned to "fresh woods and pastures new." The second one was written by a professor of Political Geography in a school of Political Science. But that is just the point which must be emphasised: the new enlargement of the sphere of interests of modern language teachers turns their subject into something like encyclopaedic human geography. The Germans, always good at terminology, have even devised a name of geographical savor for this new way of modern language study, calling it "Auslandskunde."[3]

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[2] "Im Ringen um die gewaltigen Fragen des Tages hat sich unsere Jugend von mittelalterlichen Studien merklich abgekehrt." (*Mittelenglische Sprach- und Literaturproben*, hg. v. A. Brandl und O. Zippel, 2. Auflage, Berlin, 1927, p. VIII.)

III

In conclusion of this survey of dominant tendencies, one thing must be definitely stated. It is the fact that English *studies*, in the Continental Europe of today, are more to the fore than ever. In Germany, ever since the memorable year 1874, when two periodicals devoted to English studies —*Anglia* and *Englische Studien*—had made their appearance simultaneously, *Anglistik* had been a flourishing branch of study and research, and had not ceased to be so even during the war. Nor has France been behind: as Taine was followed by Jusserand, so now the glories of Legouis and Cazamian have been added to those former ones. Denmark with Jespersen, Sweden with Ekwall and Zachrissen, Holland with Krusinga, Italy with Marl Praz and others, Russia with Storojenko and Veselovsky, Czechoslovakia with Mathesius—all have been making their weighty contributions for some time past. But here likewise the war and its consequences quickened the pace and intensified the process. It is perhaps a symbol of historical developments that, quite as the Westphalian Peace Treaty of 1648 was the last one to be drafted in Latin, so the Versailles Treaty of 1919 should have been the first which was not written only in the traditional diplomatic French of the modern era, but had also its equally authorized version in English. The new relations established by the war between Central and Eastern European nations on the one hand, and the British and Americans on the other, have given a powerful new impulse to the study of English in countries where it was not widely known before. It was a peculiar experience of my own during my war-time captivity in Russia that prisoners of war from the ranks of the German and the Austro-Hungarian armies used the enforced leisure of their imprisonment, not indeed for the study of Russian, as would have seemed most natural under the circumstances, but with singular unanimity for the study of English. Not till I lectured in Geneva in 1925 did I have for English lectures of mine an audience composed of men of so many different nationalities as that group of fellow war-prisoners to whom I lectured in English on English literature at Habarovsk in Eastern Siberia in 1918–1919. Since the war, it was particularly the activity of the numerous and gratefully remembered American relief missions in Europe—the Red Cross, Mr. Hoover's mission, the Friends, the Y. M. C. A. and other organisations —which promoted incidentally, and partly still promotes as a point of their permanent program, the study of English among their clients in Continental European lands. Hence the inevitable fact that the English which is being learned by wider and wider masses of the people who live far away from the great English-speaking countries is rather American than British in intonation and in vocabulary. A foundation for this had been laid even in the second half of the nineteenth century by the relations between European peoples and the numerous emigrants from the various countries of Europe living in America or occasionally returning from it. Post-war events have prompted "Americanisation" in language as well as in other things by different means and on an even more comprehensive scale. If the American anti-immigration laws have erected a barrier against the further penetration of America by European elements, economic developments, on the other hand, have strengthened the penetration of Europe by American influences a thousand fold; and the influence of language is naturally in the forefront of these. Why, we see it strongly exercised even on the English of the British islands itself.

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[3] *Hauptfragen der Amerika-Kunde* is the characteristic title of a recent product of the new method—a very useful collection of studies on various aspects of America by Professor Walther Fischer (Bielefeld and Leipzig, Velhagen and Klasing, 1928, *Neuphilologische Handbibliothek*, vol. 3).

It is not the enthusiastic student of English only, but many a thoughtful observer from entirely different quarters who positively anticipates today that the later twentieth century is as likely to be a period of the world-wide predominance of the English language, as the later seventeenth and earlier eighteenth was of French. Well, if it be safe to predict this, it is equally safe to foresee even today that this English world language of the coming days will have a strongly American tinge to it; and this will perhaps be only a fit symbol of the great part which America is manifestly destined to play in world affairs during the further course of this century.

R. DYBOSKI,
University of Cracow, Poland.

Constitution of American Council on Education

1. Name: The name of the organization shall be "American Council on Education."

2. Object: The general object of the Council is to promote and carry out cooperative action in matters of common interest to the Associations represented. It is understood that such matters will lie mainly in the field of university and college work, and in related educational fields. The Council was organized to meet national needs in time of war and will always seek to render patriotic service. It will also encourage international cooperation in educational matters.

3. Membership: The membership of the Council shall consist of three classes of members—constituent, associate, and institutional.

Constituent Members: This group shall consist of national educational organizations and such other bodies having similar interests as may from time to time be added by the Council.

Each organization shall be represented on the Council by three members who shall vote as a unit through a designated person. It is recommended that each organization in the first election following the date of this meeting, elect one member for a term of one year; one for a term of two years; and one for a term of three years; and that all subsequent elections be for terms of three years. Elections of new members to the Council shall take effect immediately following such elections. Any election to fill a vacancy occurring during the year shall take effect at once, and shall be for the remaining period of the term thus filled.

The Council shall report its actions to the several organizations at the close of each year ending April 30, and at such other times as may be desired.

Associate Members: Associate members shall consist of such organizations having interests related to the work of the Council as may from time to time be elected by the Council. Associate members may send one representative each to the meetings of the Council, without right to vote.

Institutional Members: This group shall consist of colleges, universities and professional and technical schools of similar grade, that contribute not less than one hundred dollars to the treasury of the Council, and of other organizations of high standing that carry on higher educational activities or cooperate with educational institutions in improving instruction, and that contribute not less than two hundred dollars a year to the treasury of the Council. The conditions of eligibility for institutional membership, both for educational institutions and for other organizations, and the scale of membership fees shall be fixed by the Executive Committee of the Council. Institutional members may send one representative each to the meetings of the Council. Whenever a vote is taken, if there are negative votes, the institutional members shall be counted separately and no action shall be valid unless supported by a majority of the constituent members present and voting. On request of any three members any matter directly affecting institutional members shall be made the subject of a referendum vote by them before final action is taken by the Council.

4. DUES: The annual dues for constituent members shall be $100 a year; for associate members $10 a year, and for institutional members from $100 to $500 a year for educational institutions, and from $200 to $2,500 a year for other organizations, a portion of which shall be for one or more subscriptions to THE EDUCATIONAL RECORD at $2.00 a year for each subscription, the number of copies to which each member is entitled being fixed by the Executive Committee.

5. OFFICERS: The Council shall elect a Chairman, a first Vice-Chairman, a second Vice-Chairman, a Secretary, a Treasurer, and such other officers as from time to time may seem desirable. The Treasurer need not be a member of the Council. All funds for which the Council, or any of its committees, is responsible, shall be received by the Treasurer and shall be disbursed by him under proper authority.

The Council shall also elect a salaried Director, who shall be the chief executive officer. He shall have general administrative supervision of the affairs of the Council and shall be responsible for the carrying out of such plans and policies as the Council, or its executive committee, may approve. He shall be *ex officio* a member of the executive committee and of all standing committees. He shall report annually to the Council, and shall make such other reports as the Chairman of the Council may request.

All officers, except the Director, shall be elected at the Annual Meeting, and their terms of office shall begin immediately following election.

6. EXECUTIVE COMMITTEE: There shall be an Executive Committee consisting of ten members, eight selected from the representatives of the constituent organizations, and the Director and the United States Commissioner of Education *ex officio*. The Chairman and Secretary of the Council shall be Chairman and Secretary, respectively, of the Executive Committee. The remaining six members shall be elected by the Council, two at each annual meeting to serve for a three-year term. The Executive Committee shall hold meetings at least quarterly, and shall report its actions to the members of the Council after each meeting.

In case a member of the Executive Committee shall fail to attend (or to designate an alternate) at two meetings of the Executive Committee, he shall cease to be a member thereof. In case of a vacancy on the Executive Committee, the Committee shall have power to fill the vacancy until the next meeting of the Council.

7. MEETINGS: The annual meeting of the Council shall be held on

the first Friday in May. Special meetings may be called by the Chairman. The Chairman shall call a meeting at any time at the request o representatives of any three constituent organizations.

Written notice of all meetings shall be sent to all members at leas two weeks in advance, except in special circumstances when this provision may be waived by consent of the representatives of two-third of the organizations constituting the Council.

Those present at any meeting of which written notice has been dul given, shall constitute a quorum for the transaction of business, but n action shall become effective until approved by representatives of majority of the organizations constituting the Council.

8. BUDGET: The Executive Committee shall present a budget eac year at the annual meeting, and no financial obligation shall be incurre by any officer or committee except as authorized by the Council or th Executive Committee. The fiscal year of the Council shall close o April 30.

9. TRAVELING EXPENSES: The traveling expenses of the officers an the Executive Committee may be paid from the funds of the Counci

It is recommended that the traveling expenses of the other membe attending the meetings of the Council be paid by the organizatio which they represent.

10. COMMITTEE APPOINTMENTS: The Council and the Executiv Committee may appoint special committees. All committee appoin ments shall expire April 30, with right to reappointment. The men bers of committees may be selected from the members of any instit tion associated with one of the organizations constituting the Counci Chairmen of committees shall be invited to sit with the Council, wit out right to vote.

11. AUTHORITY OF COMMITTEES: Final responsibility for all unde takings rests with the Council. The Executive Committee shall a for the Council between meetings, but shall refer all questions involvi new policy to the members of the Council for letter ballot before taki final action. Committees are not authorized to commit the Coun to any undertaking not specifically authorized by the Council or i Executive Committee.

12. AMENDMENTS: This Constitution may be amended at any ti by vote of three-fourths of the organizations constituting the Counc

Written notice of any proposed change in the Constitution shall sent to all constituent members of the Council at least two weeks befo the meeting at which the proposed change is to be considered.

Officers of the American Council on Education, 1929-30

Chairman: Dr. Charles H. Judd, University of Chicago, representing the North Central Association of Colleges and Secondary Schools.

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Second Vice-Chairman: Mr. Shelton Phelps, George Peabody College, representing the American Association of Teachers' Colleges.

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Two delegates to be named.

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- Florida, University of
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- State University of Iowa

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- Kentucky, University of
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- Western State Normal School

MINNESOTA:
- Carleton College
- College of St. Catherine
- College of St. Teresa
- Hamline University
- Macalester College
- Minnesota, University of
- St. Olaf College

MISSISSIPPI:
- Millsaps College
- Mississippi A. & M. College
- Mississippi Woman's College

MISSOURI:
- Central College
- Lindenwood College
- Missouri, University of
- The Principia
- St. Louis University
- Washington University
- Webster College

MONTANA:
- Montana, University of

NEW HAMPSHIRE:
- Dartmouth College
- New Hampshire, University of

NEW JERSEY:
- College of St. Elizabeth
- Georgian Court College
- Princeton University
- Rutgers University
- Stevens Institute of Technology

NEW MEXICO:
- State University of New Mexico

NEW YORK:
- Alfred University
- Brooklyn Polytechnic Institute

NEW YORK—(Continued).
- Buffalo, University of
- Colgate University
- College of the City of New York
- College of Mt. St. Vincent on Hudson
- College of New Rochelle
- College of the Sacred Heart
- Columbia University
- *Cornell University*
- Elmira College
- D'Youville College
- Fordham University
- Hamilton College
- Hunter College
- Keuka College
- Manhattan College
- Marymount College
- New York State College for Teachers
- New York University
- Rensselaer Polytechnic Institute
- Rochester, University of
- Russell Sage College
- Sarah Lawrence College
- Skidmore College
- Syracuse, University of
- St. Joseph's College for Women
- St. Stephen's College
- Union College
- Vassar College
- Wells College

NORTH CAROLINA:
- Catawba College
- Duke University
- North Carolina College for Women
- North Carolina, University of

OHIO:
- Akron, University of
- Case School of Applied Science
- Cincinnati, University of
- Denison University
- Heidelberg College
- Marietta College
- Miami University
- Muskingum College
- Oberlin College
- Ohio Wesleyan University
- Otterbein College
- Western Reserve University
- Wittenberg College

OKLAHOMA:
- Oklahoma, University of
- Oklahoma A. & M. College

OREGON:
- Oregon State Agricultural College
- Oregon, University of

PENNSYLVANIA:
- Bryn Mawr College
- Bucknell University
- Carnegie Inst. of Technology
- Drexel Institute
- Dropsie College
- Grove City College
- Immaculata College
- Lafayette College
- Lehigh University
- Marywood College
- Pennsylvania, University of
- Pennsylvania College for Women
- Pennsylvania State College
- Pittsburgh, University of
- Seton Hill College
- St. Thomas College
- St. Vincent College
- Swarthmore College
- Temple University
- Villanova College
- Wilson College

SOUTH CAROLINA:
- Converse College
- South Carolina, University of
- Winthrop College

SOUTH DAKOTA:
- Huron College
- South Dakota State School of Mines

TENNESSEE:
- Chattanooga, University of
- Southwestern
- Vanderbilt University

TEXAS:
- Baylor University
- Incarnate Word College
- Our Lady of the Lake College
- Rice Institute
- Texas, University of

UTAH:
- Brigham-Young University
- Utah Agricultural College

VERMONT:
- Middlebury College
- Vermont, University of

VIRGINIA:
- East Radford State Teachers College
- College of William and Mary
- Sweet Briar College
- Virginia Polytechnic Institute
- Virginia, University of
- Washington and Lee University

WASHINGTON:
- College of Puget Sound
- Washington, University of

WISCONSIN:
- Lawrence College
- Marquette University
- Milwaukee-Downer College
- St. Mary's College
- Stout Institute
- Wisconsin, University of

WYOMING:
- Wyoming, University of